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ABSTRACT

This junior high/middle school career exploration implementation manual is designed to assist in implementing a comprehensive career exploration program using four career exploration components developed in the Improving Career Exploration project. The first of six sections addresses career exploration and career/vocational development. Basic implementation information is provided in section 2 including discussions of planning, inservice, community resources, and evaluation. Section 3 presents the four career exploration components: (1) using the Iowa Career Education Project, (2) using the career information system of Iowa, (3) using Project Discovery, and (4) using the community school program. Involving handicapped students is addressed in section 4. The fifth section discusses two modes of exploration and the roles of guidance and counseling. A final section lists additional resources. (LRA)

**********
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ED185259

# IMPROVING CAREER EXPLORATION

## IMPLEMENTATION MANUAL

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CE 024 466

Iowa Department of Public Instruction
Des Moines, Iowa

Special Needs Section
Career Education Department
Special Education Department
Guidance Section

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS

SECTION I

Introduction to Career Exploration
Exploration
Career/Vocational Development

SECTION II

Basic Implementation

A. Planning
B. In-Service
C. Community Resources
D. Evaluation

SECTION III

Using Iowa Career Education Project (ICEP)
Using Career Information System of Iowa (C.I.S.I.)
Using Project Discovery
Using the Community School Program (CSP)

SECTION IV

Involving Handicapped Students in I.C.E.

SECTION V

More About Exploration
The System: Guidance & Counseling

SECTION VI

Additional Resources

## ACKNOWLEDGEMENTS

*This manual has been developed to help schools and institutions implement a comprehensive career exploration program.*

*It is based on information produced by thirty-four Iowa schools and institutions during their involvement in a federally funded career education project entitled "Improving Career Exploration" (I.C.E.) (Grant No. G007802022)*

*This manual deals with implementing career exploration, in general, and with the successful use of four specific career exploration components.*

*We hope this material will be useful to you.*

----------Becky Selene
----------Southwest Iowa Learning Resources Center

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Belle Plaine C.S.D.
Belle Plaine, Iowa

LaSalle High School
Carroll, Iowa

Beaman-Conrad-Liscombe C.S.D.
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Central Clinton C.S.D.
DeWitt, Iowa

Iowa Training School for Boys
Eldora, Iowa

Grundy Center C.S.D.
Grundy Center, Iowa

Harris-Lake Park C.S.D.
Lake Park, Iowa

Mason City C.S.D.
Mason City, Iowa

Mingo C.S.D.
Mingo, Iowa

Ottumwa C.S.D.
Ottumwa, Iowa

Southeast Polk C.S.D.
Runnells, Iowa

Sioux City C.S.D.
Herbert Hoover Junior High
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Toledo, Iowa

WACO C.S.D.
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Forest City C.S.D.
Forest City, Iowa

Fort Dodge C.S.D.
North Junior High
Fort Dodge, Iowa

Ida Grove C.S.D.
Ida Grove, Iowa

(1)

- INTRODUCTION
- EXPLORATION
- CAREER DEVELOPMENT

# INTRODUCTION TO CAREER EXPLORATION

## PURPOSE

The purpose of initiating a comprehensive career exploration program is to provide students and clients with the opportunity to gather career and self information for use toward making career decisions.

The career exploration program highlighted in this manual is specifically designed for use with junior high/middle school age youth.

Teachers, counselors, administrators, parents, and the community become involved in initiating this career exploration program and its activities.

- ** counselors and teachers assist each other in implementing exploration activities;
- ** administrators provide support with scheduling and curriculum adjustments and by securing necessary materials and supplies;
- ** business and industry persons provide input into the development of hands-on exploration materials and instruction for students in settings apart from the school environment.

The goal of this manual is to assist you in implementing a comprehensive career exploration program using four career exploration components. The materials referred to in most cases may be obtained by schools both in Iowa and other states.

## THE FOUR COMPONENTS USED IN I.C.E.

A. Iowa Career Education Project (ICEP)

A set of career education guidelines and objectives, and materials produced for use in integrating career education into the existing curriculum.

B. Career Information System of Iowa (C.I.S.I.)

Career information materials and guidance-based activities for developing self-perception in relation to work.

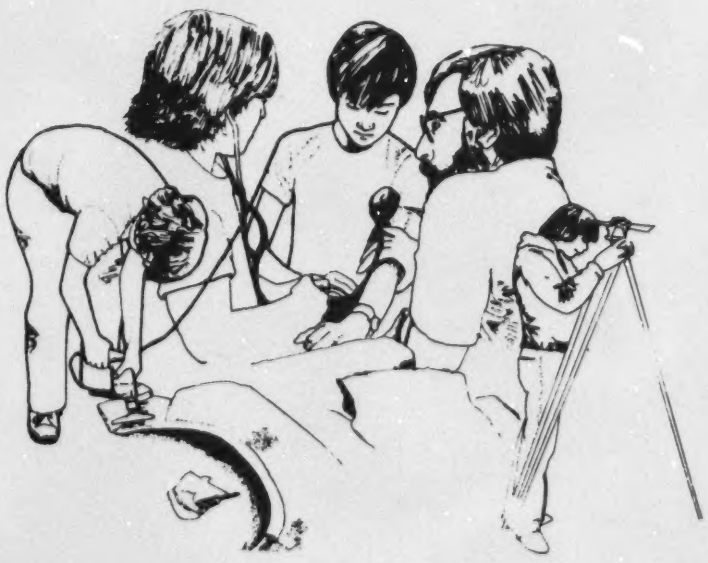
C. Project Discovery

A set of hands-on, simulated work activities for in-school use to explore career possibilities.

D. Community School Program (CSP - formerly ESP)

A plan and guidelines for initiating community-based instruction for students on a contract basis.

Details for obtaining and using these materials are found in this manual under sections for each component.



## CAREER EDUCATION & EXPLORATION

According to the USOE career education model and those models adopted by many states, students should progress through a set of career education experiences that occur at different age/grade levels.

awareness --- K-6

exploration --- junior high/middle school into high school

preparation --- secondary and/or past secondary

## WHAT IS EXPLORATION?

The term "exploration" has been in the vocabulary of American education for years. It is well known that the junior high or middle school curriculum is an "exploratory" curriculum. Generally, this means a wide variety of subjects or courses are offered to students. Students "explore" by sampling from this variety. Is "exploration", then, merely the process of being "exposed"?

A dictionary definition of exploration is "a systematic search". When we define the object of the "search" and the "system" of searching, we will have a usable definition of exploration.

## EXPLORATION VS. TRADITIONAL ACQUISITION OF KNOWLEDGE & SKILLS

Most educators are skilled in the teaching-learning processes. They know how to promote student acquisition of skills.

We assume that a youngster exposed to variety will identify the topics and skills in which he/she is most interested and has the ability for. We assume that comparison, evaluation, and decisions provide direction and boundaries for students. But we do not help the student in these processes of comparing, evaluating, and decision-making. Our assumptions, thus, do not materialize.

We are especially lax in helping students make vocational comparisons, evaluation, and decisions.

## EXPLORATION --- A FOUR PHASE PROCESS

Unpublished work by Dr. Dave Jepsen (University of Iowa) suggests that exploration consists of 4 phases.

1. INVESTIGATION of the body knowledge --- in this case, knowledge of careers.

2. INVESTIGATION of self in the context of careers --- expecially interest and abilities.

3. HYPOTHESIZING relationships between self and careers. The student's ability to determine his/her fit between careers and self is related to his/her career maturity and self knowledge.

4. TESTING of the hypotheses from Phase 3.

Many believe that Phase 1 is the only phase that requires formal structuring. "Subsequent phases may be left as an exercise for the student for they will automatically and individually perform those functions." Experiments with adults show that even mature persons do not automatically process information.

Half the nation's unemployed are under 24 years of age. Studies indicate a partial reason for this is that this age range is uncertain and/or unrealistic in its vocational goals. Young people too often leave employment because they find they "don't like it" or discover they are misfit for the work tasks. In effect, they are forced to use the labor market for exploration purposes. They are incapable of sorting through their exposures and experiences. In almost no case, can Phase 4 occur independently -- except in the labor market itself -- without a formal program. A formal program requires facilities, material, and equipment to enable youth to engage in work activity. This work activity, in turn, enables youth to test their hypotheses about themselves and careers.

The attitudes and orientation of traditional instruction are not appropriate for exploration. The objectives are different and the processes are different.

## CAREER/VOCATIONAL DEVELOPMENT

You may be familiar with the perhaps overly simplified notion that adolescence in a stage in the human cycle in which the individual is establishing self identity--in particular, one's relationship to and fit with one's world. Adolescent development is the developmental step by step process of establishing self identity.

Career development, then, is a step by step process of establishing self identity in the context of career.

Vocation is a subdimension of career.

Vocational development is a step by step process of self identity in the context of vocation.

Career education must aid career development which includes vocational development.

EXPLORATION

Designs for programs of career education must begin with career development. The I.C.E. program addresses career by its title, but emphasizes vocation by its content. There is sound argument and much sociological evidence that vocation is the most important dimension of a career. As will be seen later, a staff may modify I.C.E. to match local objectives through the selection and use of counseling.

CAREER DEVELOPMENT

Figure 1 depicts the steps of career development.

A brief explanation of each step and the type of educational program to facilitate each follows:

1. Self Awareness: awareness of self in general terms; awareness of values. (Counseling)

2. Work Awareness: general awareness of the variety, styles, and conditions of work.(Traditional Instruction)

3. General Work-Self Awareness: general awareness of self in the context of work; tentative work-self hypotheses based on vicarious information and inexperience; awareness of work values and the general expectations of work. (Counseling)

4. Specific Interest Awareness: awareness of interest in the content of work --- specific types, styles, and conditions of work tasks. (Exploration)

5. Ability Awareness: awareness of ability in the content of work -- specific levels, types and styles of work tasks. (Exploration and Measurement)

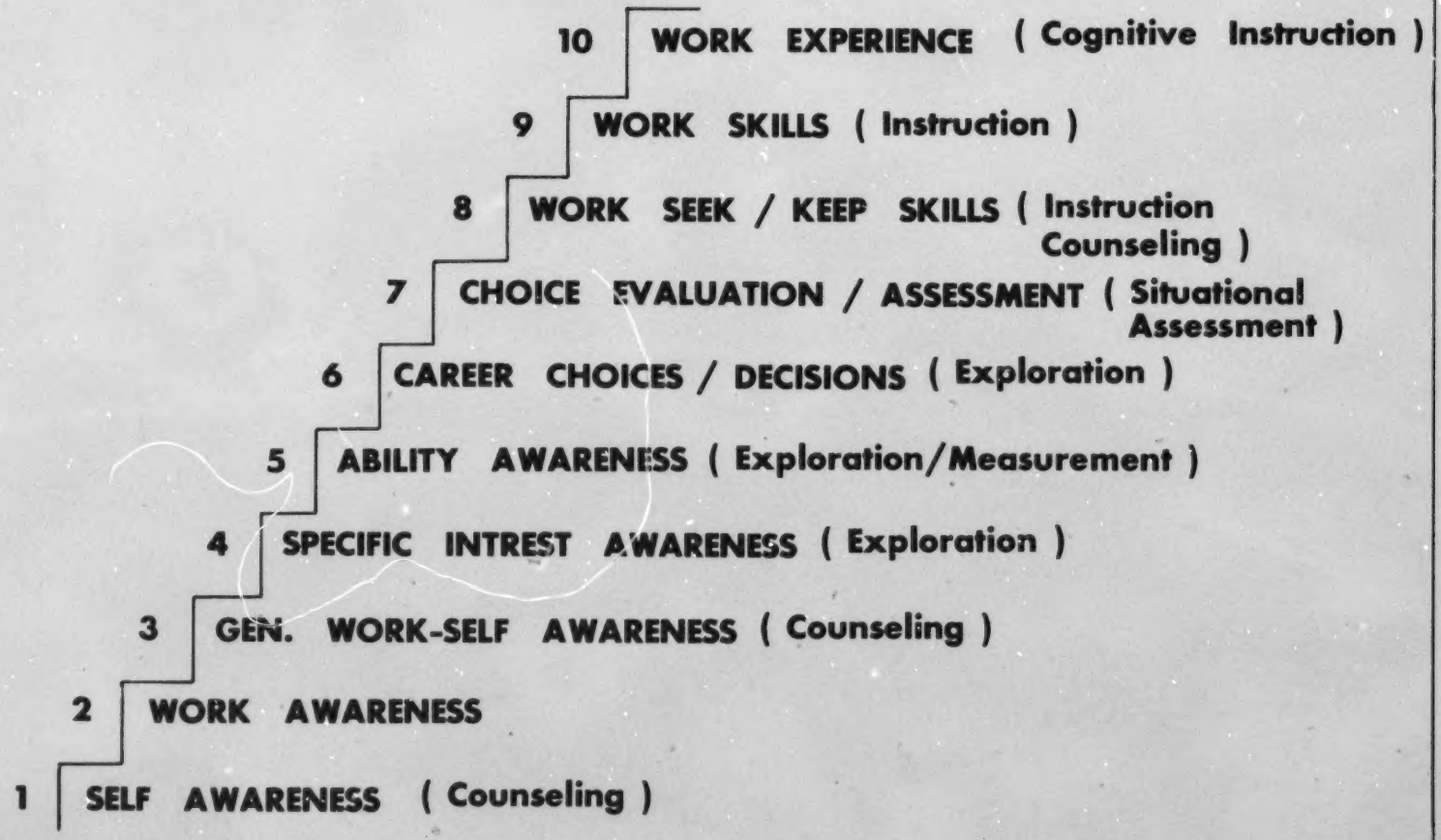
6. Career Choices/Decisions: based on knowledge, awareness, options generated by the previous stages; the selection and statement of clear and specific career and vocational goals. (Exploration)

7. Choice Evaluation/Assessment: testing and validation of the tentative choice from Step #6.
(Situational Assessment - the situation is the nearest possible to the chosen work)

8. Work Seek/Keep Skills: acquiring skills of work seeking and work adjustment. (Instruction & Counseling)

9. Work Skills: acquiring vocational skills of the validated career/vocational choice. (Traditonal Secondary and Post Secondary Education)

# STEPS IN CAREER DEVELOPMENT


10 WORK EXPERIENCE ( Cognitive Instruction )
9 WORK SKILLS ( Instruction )
8 WORK SEEK / KEEP SKILLS ( Instruction Counseling )
7 CHOICE EVALUATION / ASSESSMENT ( Situational Assessment )
6 CAREER CHOICES / DECISIONS ( Exploration )
5 ABILITY AWARENESS ( Exploration/Measurement )
4 SPECIFIC INTREST AWARENESS ( Exploration )
3 GEN. WORK-SELF AWARENESS ( Counseling )
2 WORK AWARENESS
1 SELF AWARENESS ( Counseling )

EXPLORATION

This set of steps or stages is not static or rigid. Individualization must allow entry at the stage that is appropriate to the individual's vocational development. Stages may need to be inverted or skipped. Recycle and looping will also exist in a mature career education program.

For purposes of I.C.E., exploration follows awareness or more appropriately, awareness fades into exploration. The individual moves from general awareness of self and/or work to specific awareness in the context of work.

This then is the object of the exploration "search" --- awareness of self and work and the specific awareness of self in the context of work.

(Detailed discussion of the "system" of exploration searching may be found under "The System --- Guidance and Counseling").

(2)

- BASIC IMPLEMENTATION

BASIC IMPLEMENTATION

1. PLANNING

   Needs

   Initial Planning

   Detailed Planning

2. INSERVICE/TRAINING

   Total Building Staff

   Initial Planning Committee

   Core Staff

   Component

3. COMMUNITY RESOURCES

   Community Resource Guide

   Public Relations

4. PROGRAM EVALUATION

   Formative Evaluation

   Summative Evaluation

# PLANNING

## 1. NEEDS

### A FEW WORDS ABOUT PLANNING & NEEDS ASSESSMENT

While planning, keep in mind that it is an on-going process --- never static.

Your goals and plans must be based on assessed need.

How will your goals interact with the real world environment you have to work with?

You need information about resources (facilities, equipment, & money) and performance (personnel, staff) and time.

These things are not always constant.
They may change over the period of time of implementation of your program.

You may have to deal with lack of funds, staff illness and resignations, and lack of expertise in specific areas necessary to the program.

You WILL run short of TIME!

Prior to the initial decisions about a career exploration program, a needs assessment should be done.

Needs assessment is a data-gathering technique useful in establishing priorities and program objectives.

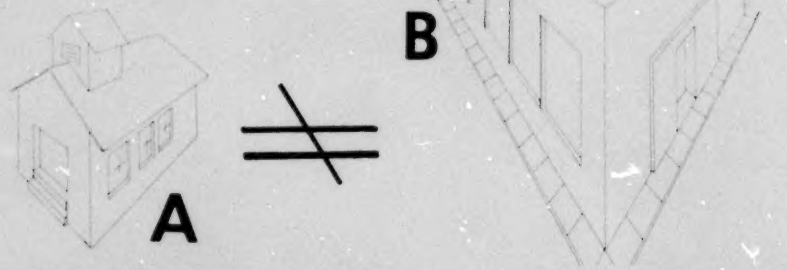
It can be used to identify the unique needs of students at a particular school.

It can help identify needs which might be more adequately met by a combination school and community program.

NEEDS (cont'd)

THE NEEDS OF INSTITUTION A DO NOT EQUAL

THE NEEDS OF INSTITUTION B.




Your implementation plan must be in direct response to student needs, program objectives, existing curricular structure, staff, facilities, and resources.

The basic tools for implementation of a comprehensive career exploration program are yours from the start with I.C.E.:

| | |
|---|---|
| flexibility | latitude |
| discretion | professional judgment |
| institution needs | institution objectives |

The following pages contain examples from needs assessment instruments you might use.

Other instruments may be available from your state department of education or area agency.

IN IOWA: Contact the Pupil Personnel Services - Guidance Services Section at the Department of Public Instruction or your AEA.

SAMPLE NEEDS ASSESSMENT INSTRUMENTS

19. I feel my need for help with vocational and educational planning to be:

A. Need considerable help in planning what I am going to do.

B. Have some plans made but could use some additional help.

C. Do not feel I need any additional help.

19. a ○ b ○ c ○

20. I feel confused and undecided as to what my goal in life should be:

A. Always B. Usually C. Sometimes D. Rarely E. Never

20. a ○ b ○ c ○ d ○ e ○

21. For the grade I am in I feel that I need help in becoming a person:

A. No special problem. B. Yes, some. C. I feel no one understands me.

21. a ○ b ○ c ○

22. I feel my needs as a student are being met by the school.

A. Yes B. Not sure C. No

22. a ○ b ○ c ○

23. At times I feel I have to fit into a certain slot in the school program and have little freedom to select a course of study of my own choosing.

A. Yes B. Not sure C. No

23. a ○ b ○ c ○

24. My counselor helps mostly with: (Mark only one.)

A. Schedules B. Educational and vocational planning C. No help

D. Personal concerns E. Gives me useful information F. Have not gone to the counselor

24. a ○ b ○ c ○ d ○ e ○ f ○

25. When I have asked to see my counselor:

A. He/she helped me to solve my problems. B. Usually I wasn't able to see him/her.

C. He/she listens but usually couldn't help me solve the problem.

D. Usually he/she didn't seem interested. E. Have not seen the counselor.

25. a ○ b ○ c ○ d ○ e ○

26. My counselor tries very hard to understand me.

A. Yes, I feel accepted and understood. B. Have not gone to the counselor.

C. They try, but don't give it the time or attention that is really necessary.

D. Very little attention is really given. E. No, they don't try to understand.

26. a ○ b ○ c ○ d ○ e ○

27. If I had a personal problem that was a real concern to me I would be most likely to seek help from:

A. Counselor B. Other school personnel (teachers, administrators, etc.)

C. Relative D. Other

27. a ○ b ○ c ○ d ○

28. If I had a need for help in trying to decide on a career or area of study for a vocation, I would be most likely to go for help to:

A. Counselor B. Other school personnel (teachers, administrators, etc.)

C. Relative D. Other

28. a ○ b ○ c ○ d ○

29. Do you think the counseling services in your school are primarily for:

A. The problem cases? B. The popular students? C. College bound students?

D. All the students?

29. a ○ b ○ c ○ d ○

Available from Iowa State Department of Public Instruction; Grimes State Office Building; Des Moines, Iowa, 50319.
Contact the Guidance Services Section.

| I NEED: | No Need | A Weak Need | A Moderate Need | A Strong Need | The Need Is Being Met | The Need Is Partially Being Met | The Need Is Not Being Met |
|---|---|---|---|---|---|---|---|
| 56. To have help to obtain part-time and/or summer work | | | | | | | |
| 57. To know more about job opportunities in my high interest areas | | | | | | | |
| 58. To get to know my counselor/adviser better | | | | | | | |
| 59. To talk about personal concerns with a counselor | | | | | | | |
| 60. To become more fully aware of the guidance and counseling services | | | | | | | |

**List below any additional needs you feel are important to you and the degree to which they are being met.**

| | | | | | | | |
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Name _____
Grade _____
School _____
Date _____

# River City High School Guidance Services
## NEEDS ASSESSMENT SURVEY

By participating in this needs assessment survey, you can help us plan school and community activities that will better serve you. What is a need? Needs are requirements we all have for a full, happy, and meaningful life. They range from needs for food and sleep to needs for social, educational, and personal development. Our needs differ from each other in the degree in which we feel them; some needs are strong, others weak. Some of our needs are being met, totally or partially, in a variety of ways: at home, or through school, church, or friends. Other needs are perhaps not being met at all.

Please read the directions before responding to the survey items; if you have any questions, ask your counselor. Thank you for your assistance.

*DIRECTIONS:*

1. First read the item and consider it carefully.
2. If you decide you have no need, check the box beside the item in the column **no need** and proceed to the next item. Do not check any other boxes for that item.
3. If you decide you have a need, leave the **no need** box empty and check the box of your choice in the column under **NEED RESPONSE**. If you check a box under **NEED RESPONSE**, be sure to also check a box under the **SATISFACTION RESPONSE** choices.

*EXAMPLES:*

| ITEM | NEED RESPONSE | | | | SATISFACTION RESPONSE | | |
|---|---|---|---|---|---|---|---|
| I NEED: | No Need | A Weak Need | A Moderate Need | A Strong Need | The Need Is Being Met | The Need Is Partially Being Met | The Need Is Not Being Met |
| A. To wear glasses. (**Note:** Because the answer is **no need**, all other responses are left blank.) | X | | | | | | |
| B. To breathe cleaner air. (**Note:** This example shows a **strong need** that is only partially being met.) | | | | X | | X | |
| C. To develop better study habits. (**Note:** This example shows a **weak need** that is not being met.) | | X | | | | | X |

**Please proceed to the remaining items.**

| I NEED: | No Need | A Weak Need | A Moderate Need | A Strong Need | The Need Is Being Met | The Need Is Partially Being Met | The Need Is Not Being Met |
|---|---|---|---|---|---|---|---|
| 1. To know more about my abilities, interests, and other characteristics | | | | | | | |
| 2. To understand, accept, and like myself better | | | | | | | |
| 3. To develop more confidence in myself | | | | | | | |
| 4. To understand how my feelings affect my behavior | | | | | | | |
| 5. To be more accepting of my physical appearance | | | | | | | |



Available from ACT Publications; P.O. Box 168; Iowa City, Iowa 52240.

| I NEED | No Need | A Weak Need | A Moderate Need | A Strong Need | The Need Is Being Met | The Need Is Partially Being Met | The Need Is Not Being Met |
|---|---|---|---|---|---|---|---|
| 6. To set goals in life | | | | | | | |
| 7. To learn better to tell others how I feel | | | | | | | |
| 8. To be a better listener and respond better to others | | | | | | | |
| 9. To state my own views | | | | | | | |
| 10. To better understand teachers | | | | | | | |
| 11. To better understand people older than me | | | | | | | |
| 12. To become more accepting of others | | | | | | | |
| 13. To build trusting relationships with others | | | | | | | |
| 14. To have someone listen to me when I have problems | | | | | | | |
| 15. To know how to get along better with my family | | | | | | | |
| 16. To have better relationships with teachers | | | | | | | |
| 17. To have better relationships with other students | | | | | | | |
| 18. To know how to get along better with members of the other sex | | | | | | | |
| 19. To develop more friendships with both sexes | | | | | | | |
| 20. To understand my religious beliefs more clearly | | | | | | | |
| 21. To understand more about sex and love | | | | | | | |
| 22. To understand my values and the use/abuse of drugs, including alcohol | | | | | | | |
| 23. To become more tolerant of persons whose views differ from mine | | | | | | | |
| 24. To know more about my strengths and weaknesses | | | | | | | |
| 25. To better understand my standardized test scores | | | | | | | |
| 26. To understand what I can realistically achieve | | | | | | | |
| 27. To know how to assess and evaluate my goals | | | | | | | |
| 28. To learn how to make decisions | | | | | | | |
| 29. To learn ways to adapt to a changing world | | | | | | | |
| 30. To understand the impact of my sex on my career choice | | | | | | | |



| I NEED | No Need | A Weak Need | A Moderate Need | A Strong Need | The Need Is Being Met | The Need Is Partially Being Met | The Need Is Not Being Met |
|---|---|---|---|---|---|---|---|
| 31. To understand the changing roles and expectations of men and women | | | | | | | |
| 32. To select more school courses by myself | | | | | | | |
| 33. To know more about graduation requirements | | | | | | | |
| 34. To find more courses relevant to my future | | | | | | | |
| 35. To receive more help in selecting courses | | | | | | | |
| 36. To find courses which are appropriate to my educational needs | | | | | | | |
| 37. To know how to prepare for careers in which I am interested | | | | | | | |
| 38. To know how the courses I am taking relate to my career plans | | | | | | | |
| 39. To know about financial aids for continuing education beyond graduation | | | | | | | |
| 40. To become more aware of educational alternatives after graduation | | | | | | | |
| 41. To become aware of career training offered in my high interest areas | | | | | | | |
| 42. To understand the impact of work on my life | | | | | | | |
| 43. To know how the things that are important to me affect my career choice | | | | | | | |
| 44. To know more about possible careers and the world of work | | | | | | | |
| 45. To talk with people employed in my high interest areas | | | | | | | |
| 46. To get some on-the-job experience in my high interest areas | | | | | | | |
| 47. To do an in-depth exploration of jobs which relate to my interests and abilities | | | | | | | |
| 48. To have actual on-the-job experience to know what it is like to be employed | | | | | | | |
| 49. To know how important people influence my career choice | | | | | | | |
| 50. To develop career plans and goals | | | | | | | |
| 51. To talk to a counselor about career plans | | | | | | | |
| 52. To have my parents involved in my career plans and to talk more with my parents about my career plans | | | | | | | |
| 53. To know what jobs are available locally | | | | | | | |
| 54. To know where and how to start looking for a job | | | | | | | |
| 55. To know how to apply and interview for jobs | | | | | | | |

Appendix 20.1

# MISSOURI STUDENT NEEDS SURVEY
## TEACHER SECTION

Name of School_____

DIRECTIONS: Considering the programs within your school respond to each item by marking the appropriate space in the columns provided.

| | Yes | No |
|---|---|---|
| 1. Do you assist pupils to review and interpret their own records periodically? | ○ | ○ |
| 2. Do you provide units on occupations within your classes? | ○ | ○ |
| 3. Do you confer with administrators about pupils who need special attention? | ○ | ○ |
| 4. Do you confer with counselors about pupils who need special attention? | ○ | ○ |
| 5. Do you feel that administrators provide necessary services and feedback to you concerning students' needs? | ○ | ○ |
| 6. Do you feel that counselors provide necessary services and feedback to you concerning students' needs? | ○ | ○ |
| 7. Does the school have a definite plan for placing students in learning activities, within the school and community, in accordance with individual abilities, interests, and needs? | ○ | ○ |
| 8. Do you use information available through the guidance services to learn more about the pupils in your classes? | ○ | ○ |
| 9. Does the school use follow-up data for re-organizing and reviewing the curriculum at regular intervals? | ○ | ○ |
| 10. Have you sought out student information and evaluation of your classes? | ○ | ○ |
| 11. Do you modify your instructional materials and techniques each semester to meet the needs of students? | ○ | ○ |
| 12. Would you be willing to teach short mini courses to small groups of students? | ○ | ○ |
| 13. Do you personally talk with students about careers and future planning? | ○ | ○ |
| 14. Do you personally talk with students about careers in your area of specialization? | ○ | ○ |
| 15. Do you give students information about college and/or vocational schools in your area of specialization? | ○ | ○ |
| 16. Do you personally encourage students who show career interest in your area to study occupational materials? | ○ | ○ |
| 17. Do you refer students who need assistance to the counselor or some other specialist? | ○ | ○ |
| 18. Do you personally use test results to plan or modify your teaching? | ○ | ○ |
| 19. Do you personally help administer the standardized tests given in your school? | ○ | ○ |
| 20. Do you feel the school's regulations permit you the flexibility necessary to meet the needs of students? | ○ | ○ |
| 21. Do you personally talk with parents about their child who may need help, encouragement, understanding, etc? | ○ | ○ |
| 22. Do you personally feel that your classes are related to the needs of the students who take them? | ○ | ○ |
| 23. Is there a need for more vocational and technical course offerings in the curriculum to meet the needs of the non-college bound student? | ○ | ○ |
| 24. Do you feel the counselors are allowed sufficient time to work with students as they should? | ○ | ○ |
| 25. Do you personally feel that there is a need for a revision of the courses required for graduation? | ○ | ○ |
| 26. Do you feel that there is sufficient interaction and communication between teachers and counselors regarding students? | ○ | ○ |

# MISSOURI STUDENT NEEDS SURVEY

## PARENTS SECTION

SCHOOL _____

Please mark the grade of your son or daughter. 9 ○ 10 ○ 11 ○ 12 ○

Please answer these items "yes", "?", or "no". We would prefer that you not consult your high school age son or daughter when completing this form. This is your opinion.

| | Yes | ? | No |
|---|---|---|---|
| 1. I feel my child needs considerable help with his future educational and vocational plans. | ○ | ○ | ○ |
| 2. If my son/daughter needed help in trying to decide on a career or area of study for a vocation, I would like for him to seek help from the following people: (Rate each response.) | | | |
| a. counselor | ○ | ○ | ○ |
| b. other school personnel (teachers, administrators, etc.) | ○ | ○ | ○ |
| c. relative | ○ | ○ | ○ |
| d. other | ○ | ○ | ○ |
| 3. My son or daughter receives necessary information regarding trade, vocational, or college training. | ○ | ○ | ○ |
| 4. My child receives the necessary information about himself/herself related to future educational and vocational planning. | ○ | ○ | ○ |
| 5. Has the school counselor helped your child to examine his abilities, personality traits and interests as they may pertain to his future plans? | ○ | ○ | ○ |
| 6. The counselor has assisted my child on how to make decisions in pursuit of his goals. | ○ | ○ | ○ |
| 7. Has the school provided you an opportunity to discuss the educational plans of your child? | ○ | ○ | ○ |
| 8. There is a definite need for the school to provide more information to the parents concerning plans related to their child. | ○ | ○ | ○ |
| 9. Have you been adequately informed regarding the Guidance program in your local school? | ○ | ○ | ○ |
| 10. The counselor works closely with my child in developing his confidence to relate effectively to the school and other students. | ○ | ○ | ○ |
| 11. If my child had a personal problem that was of real concern to him, I would like for him to seek help from the following people: (Rate each response.) | | | |
| a. counselor | ○ | ○ | ○ |
| b. other school personnel (teachers, administrators, etc.) | ○ | ○ | ○ |
| c. relative | ○ | ○ | ○ |
| d. other | ○ | ○ | ○ |
| 12. I feel my child has to fit into a certain slot in the school program and has very little freedom to select a course of study of his own choosing. | ○ | ○ | ○ |
| 13. Graduation requirements should be changed to meet the individual needs of students. | ○ | ○ | ○ |
| 14. The curriculum offerings in the school seem relevant to the needs of the individual student. | ○ | ○ | ○ |
| 15. Most of the teachers are doing an excellent job in making their classes as meaningful as possible for the students. | ○ | ○ | ○ |
| 16. The teachers do all they can to relate their classes to the needs of my child in relation to his future plans. | ○ | ○ | ○ |
| 17. There appears to be mutual trust and confidence between students and teachers. | ○ | ○ | ○ |
| 18. The teachers seem to work closely in helping my child to develop confidence in being able to relate effectively to the school and other students. | ○ | ○ | ○ |
| 19. My child looks forward to going to school each day. | ○ | ○ | ○ |
| 20. The school doesn't seem to care about the students. | ○ | ○ | ○ |
| 21. Many of the classes being taught in Math-English-Social Studies, etc., seem to be irrelevant to the current needs of my son or daughter. | ○ | ○ | ○ |
| 22. It seems my child has to take many classes which are of no possible use to him. | ○ | ○ | ○ |

# MISSOURI STUDENT NEEDS SURVEY
## EMPLOYERS SECTION

Name of School _____

Please indicate in space below the nature of your business. (Hospital, Restaurant, Men's Clothing, Supermarket, etc.) _____

Please indicate your position. (Owner, Manager, Foreman, etc.) _____

Please answer Yes or No to each statement given below. Use the column marked N.A. (Not Apply) only if the question does not in any way apply to your type of business. Use attached sheet for comments you feel are necessary.

| | YES | NO | NA |
|---|---|---|---|
| 1. Is the instruction provided in the school related to the needs of the students for success on the job with your firm or company? | O | O | O |
| 2. Do the jobs held by students or recent graduates in your organization offer a chance for promotion or advancement? | O | O | O |
| 3. Is there a need for the student to have a more thorough general education in terms of basic Math, English usage, etc? | O | O | O |
| 4. Are the student employees in your organization adequately prepared to do the job for which they were hired? If not, please comment on attached sheet | O | O | O |
| 5. Would you prefer that a student receive specialized training at the high school level for employment in your organization, rather than a basic general education? | O | O | O |
| 6. Does the high school student have respect for fellow employees? | O | O | O |
| 7. Does the high school student have respect for supervisory personnel? | O | O | O |
| 8. Do student employees have good work attitudes and work habits? Comment if necessary | O | O | O |
| 9. Is grooming and personal appearance among school age employees important to your firm or company? If so, how? Use attached sheet for comments | O | O | O |
| 10. Are hair styles and dress major factors to be considered when hiring female employees? | O | O | O |
| 11. Are hair styles and dress major factors to be considered when hiring male employees? | O | O | O |
| 12. Are high school students willing to accept responsibility readily? | O | O | O |
| 13. Do the high school students have the necessary competencies to correctly fill out job application forms accurately and completely? | O | O | O |
| 14. Should the high school student receive more training and instruction regarding punctuality, reliability, accuracy, etc? | O | O | O |
| 15. Is the training received at the high school level related to existing career opportunities that offer possible promotion and advancement? | O | O | O |
| 16. Have you ever been consulted concerning the training, skills, attitudes, etc., which should be taught in high school to make youth better employees? | O | O | O |
| 17. Do you feel that business and industry should be contacted concerning the type of training provided? | O | O | O |
| 18. Would you as a representative of your firm be willing to serve on an advisory committee concerning the needs of youth in your community relating to training received in business education, trade and industrial, agriculture, etc? | O | O | O |
| 19. In general, do the students who you interview or employ seem to want to do the type of work for which they are applying? | O | O | O |
| 20. In general, do the students who you employ seem to want to engage in the activities required for success in your company? | O | O | O |
| 21. Do the students have a realistic concept of what is required of a beginner in the job for which they are applying? | O | O | O |
| 22. Most who apply seem reasonably well prepared for entry level employment and we employ them as openings occur | O | O | O |
| 23. We have employed a number, but find they need additional education and/or training before they perform satisfactorily | O | O | O |
| 24. We have found it inadvisable to employ them except for unskilled jobs | O | O | O |
| 25. The nature of most entry jobs in our firms is such that they are virtually unemployable because of a lack of occupational education and training | O | O | O |

## II. INITIAL PLANNING

Identify the initial planning group.

A. Who will this planning group be?

Will it be an advisory committee?

| | |
|---|---|
| administrator | parent |
| business person | counselor |
| student | classroom teacher |

B. Will this be the same group that does the detailed planning for the program?

C. What will be the goals of this planning group?

1. Determine needs within the school district, if not previously done by some other group;
2. Determine the scope of the program;
3. Determine the overall goals & purposes of the program;
4. Establish public relations efforts;
5. Identify the core staff group, if it is to differ from this initial planning group;
6. Determine budgetary considerations.

## III. DETAILED PLANNING

Identify the core staff group.

A. Who will this group be?

1. Administrator & Project Leader

-- fastest method of making plans

-- however, decisions could be made too hastily

-- limited feedback

-- provides no cross section of staff

-- planning could be done before and after school hours

-- a very autocratic method

2. Steering Committee (of approximately 5 persons)

-- brainstorming produces more ideas

-- method produces more support for the program and involvement

-- takes more time

-- produces better communication

-- more difficult to pinpoint accountability

3. All Program Staff

-- if release time provided, is a better overall plan

-- may take too much time

-- creates better evaluation of the program

CHOOSE THE PLANNING GROUP THAT BEST FITS YOUR SITUATION.

III. DETAILED PLANNING (con't)

B. What will be the goals of this group?

1. Determine, in detail, the scope of the program;

2. Make contact for obtaining the component materials;

   Plan in-service for training in use of materials;

3. Determine, in detail, the time schedule for implementing the components;

4. Visit other schools with on-going career exploration programs;

5. Determine interface with any "old" programs;

   Determine merge with or termination of any "old" programs;

6. Determine specific public relations activities:

   -- radio/TV broadcasts -- newspaper coverage

   -- displays at library or Chamber of Commerce office

7. Plan parent orientation session;

8. Determine scheduling of students into components;

9. Plan student orientation;

10. Identify student target population;

11. Identify student contact time;

12. Assign specific responsibilities to staff members;

13. Determine evaluation plan;

14. Determine opportunities offered by community for resources, CSP training sites, etc. --- this may be done in conjunction with efforts by the advisory committee;

15. Identify coordinator, if necessary;

16. Identify facilities to be used for each component;

17. Plan building staff in-service;

18. Plan interim planning meetings for program review.

MAKE PLANS TO FIT YOUR SITUATION.

ABOVE ALL ---- TAKE TIME TO PLAN!!!

THE FOLLOWING PAGES CONTAIN PLANNING WORKSHEETS AND A SUGGESTED IMPLEMENTATION PLAN TIMELINE.

PLANNING WORKSHEET A

INITIAL PLANNING

| Task Accomplished | Goal Item | Responsible Person(s) |
|---|---|---|
| | Needs assessment survey | |
| | Determine scope of program | |
| | Determine overall goals & purposes | |
| | Establish public relations efforts | |
| | Identify core staff group | |
| | Obtain commitment of core staff | |
| | Visit other I.C.E. sites | |
| | Determine budgetary considerations | |
| | | |
| | | |

NOTES:

PLANNING WORKSHEET B

## DETAILED PLANNING

| Task Accomplished | Goal Item | Responsible Person(s) |
|---|---|---|
| | Determine scope of program (details) | |
| | Order component materials | |
| | Plan in-service for training in use of materials | |
| | Determine time schedule for implementation of components | |
| | Visit other I.C.E. sites | |
| | Determine interface with "old" programs | |
| | Determine/schedule specific public relations efforts | |
| | Plan/hold parent orientation | |
| | Establish scheduling--student | |
| | Establish student population | |
| | Identify student contact time | |
| | Assign responsibilities - staff | |
| | Identify community resources | |
| | Identify coordinator | |
| | Identify facilities to be used for each component | |
| | Check in materials as they arrive | |
| | Prepare facilities | |
| | Hold building staff in-service | |
| | Devise evaluation plan | |
| | Orient students | |

PLANNING WORKSHEET B

DETAILED PLANNING (con't)

| Task Accomplished | Goal Item | Responsible Person(s) |
|---|---|---|
| | Implement C.I.S.I. | |
| | Implement Project Discovery | |
| | Implement CSP | |
| | Implement ICEP | |
| | Plan interim sessions for program review | |

## SUGGESTED IMPLEMENTATION PLAN+

| | |
|---|---|
| April, May, June | Needs assessment completed |
| | Advisory committee established |
| | Materials ordered |
| | *Visits to sites with on-going career exploration programs |
| | Commitments obtained from staff |
| | Commitments obtained for facilities for program use |
| | Budgetary considerations settled |
| | School board approval if necessary |
| | Scheduling of workshops on use of components set for Fall |
| | *Initial scheduling of students into program |
| August | Materials arrive - checked |
| | Establishment of core staff |
| | Assignments to staff |
| | Staff becomes familiar with materials |
| | Preparation of lab facilities |
| | Workshop(s) on use of component materials |
| | *Visits to sites with on-going career exploration programs |
| | Final scheduling |
| | Objectives set with timeline |
| | Establishment of target student population |

+Based on implementation of all 4 components in one semester.

SUGGESTED IMPLEMENTATION PLAN

| | |
|---|---|
| September | In-service for entire school staff to review plans and progress |
| | Letter to parents regarding program |
| | News release to local media regarding program |
| | Evaluation plan set; questionnaires developed for student-staff, parent-staff, and teacher feedback |
| | Orientation session for students |
| October | Begin implementation of C.I.S.I. |
| | Begin implementation of Project Discovery |
| | Staff responsible for CSP begin contacts with employers and selection of students to be involved |
| | Implementation of CSP |
| | Open House |
| | ICEP materials available for staff review |
| November | Begin implementation of ICEP --- teachers set minimum number of activities to be completed by semester |
| | Develop chart for keeping track of ICEP materials |
| | Core staff reviews progress to date |
| December | Develop plans for any changes to be made in program for the second semester |
| | Article in local area agency newsletter |
| | Final evaluation |
| | Questionnaires administered to students, parents, teachers (possibly administer parent questionnaire at parent-teacher conference whenever this occurs)* |
| | Preparation of materials, facilities for second semester |
| | Report to school board |

*May be done at time that best fits your situation.

## IN-SERVICE & TRAINING

By now, you are aware that you will need to plan for several in-service and training sessions.

These meetings should be structured over the entire period of time the program will be operating --- and beyond.

You will need to determine how many and what type of staff meetings are necessary in your situation.

Here are groups that sessions should be held for:

Total Building Staff
Initial Planning Committee
Core Staff

### 1. TOTAL BUILDING STAFF

1. Initial Meeting(s)

- Determine when this meeting will be held - prior to the decision for a comprehensive career exploration program or after.
- Will this meeting be providing information on a program already planned or for discussion and input into planning such a program.
- What will be on the agenda for the initial meeting:
  - awareness for all four components
  - purposes of the program
  - needs assessment information, if available
  - role involvement of teachers, counselors, and administration
  - involvement of students and parents
  - overview of facilities to be used
  - evaluation plan

- What resources can you use for this meeting:
  - mentors/staff from schools with on-going exploration programs
  - personnel from state department of education and area agencies
  - Project Discovery orientation film
  - guest speakers from community
  - the materials themselves - C.I.S.I. ICEP and Project Discovery

- What approaches can be used during this meeting:
  - speaking
  - small group discussions
  - actual use of the materials

2. Other Building Staff Meetings

   All that can be said here is DO.
   DO hold periodic updates for your total building staffs.
   Keep them abreast of your progress and plans.

## II. INITIAL PLANNING COMMITTEE

1. Determine when these meetings will be

   These will be strategy meetings --- preferably held in the Spring prior to implementation of program in the Fall.

2. What will be on the agenda at these meetings:

   - determining needs
   - visits to other sites
   - budgeting considerations and school board approval
   - determining division of responsibility for next phases of planning and implementation
   - specific concerns about the components

3. What resources will you use at these meetings:

   - other site staff members
   - personnel from the state department of education and area education agencies
   - specialist from components

III. CORE STAFF

1. These meetings will need to be a specialized set of meetings.

   They should take place in the summer prior to program start-up in the Fall and thereafter, throughout the year.

2. What will be on the agenda at these meetings:

   - obtaining commitment from other staff members
   - dividing the workload and responsibilities for the components
   - details of scheduling students
   - details of materials acquisition
   - indepth study of component materials
   - visits to other sites
   - compiling lists of community resources
   - preparation of facilities
   - implementing evaluation plan
   - developing student, parent, teacher questionnaires
   - developing means of compiling information students generate through their exploration (record-keeping system)

3. What resources will you use at these meetings:

   - staff from other schools with career exploration programs
   - specialists from component areas
   - counseling materials available with C.I.S.I. and Project Discovery

## COMPONENT WORKSHOPS

Training is available to you in the use of the component materials.

You should contact the persons listed under the detail section for each component to make arrangements for these training sessions.

### C.I.S.I.

Specialists will teach you how to use the materials with your students.

They will introduce you to the counseling activities incorporated into the C.I.S.I. system.

They will give you assistance in when to use the materials during the student's exploration.

### Project Discovery

Specialist will acquaint you with the materials in detail. You will use the materials much as your students will in the classroom.

They will make you aware of the counseling materials available with the Project Discovery materials. They will assist you in planning when to use specific activities.

They will assist you with suggestions on how to set up this portion of the exploration process and with acquiring needed materials.

### CSP

Specialists can give you guidelines on working with the community to give special students training. They will acquaint you with funding available to pay community persons for training students.

## COMMUNITY RESOURCES

### WHY?

The involvement of the community must not be forgotten in the planning and execution of a comprehensive career exploration program. The eventual outcome of such a program is for students to enter the community and the world of work. The I.C.E. component materials provide opportunities for involving the community.

C.I.S.I.: Persons in community for students to interview
Persons to speak on various careers of interest to students
Persons to provide information on career areas: tapes, films, filmstrips, video tapes, print literature.

Project Discovery: Assistants to help students during package exploration
Persons to provide additional experiences for students after their package exploration
Contacts for field trips
Businesses and groups willing to make donations of materials and money toward the upkeep of the packages

CSP training sites and persons willing to develop contracts for training for students.

### What & Where?

Where do you look for resources:

Chamber of Commerce/Industrial Foundation
newspaper
telephone book
service clubs
senior clubs
senior citizen groups
parents
retired worker groups
library
parent - teacher organizations

### Community Resource Guide

Information collected for a community resource guide is highly valuable to your program --- even if you do not choose to develop a final document. The guide can provide a means for collecting information regarding areas of cooperation of local businesses, industries, and government agencies. This information should include names of persons and what they are willing to contribute:

speaking
small group discussions
conduct field trips
provide literature, tapes, films, etc.
provide shadowing experiences
provide CSP sites and training

You might classify this information by occupation, job family or career cluster. The following form is an example of a format you might use to collect community resource information.

COMMUNITY RESOURCE GUIDE

Job Family/Cluster _____

Occupation(s) _____

Reading References:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

These people have been contacted and are willing to act as resource people:

| Name | Occupation | Phone | Resource |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |

These school faculty have been contacted and are willing to act as resource people:

1.
2.
3.
4.
5.

Courses in our school that are valuable for this occupation:

1.
2.
3.
4.
5.

Local establishments which hire people in this cluster/family/occupation:

1.
2.
3.
4.
5.

## PROGRAM EVALUATION

*"When someone wants to defend something or to attack something, he often evaluates it."*

The main purpose of evaluating an education program is to provide information for decisions.

Evaluation is going to occur either with purpose or by default.

The program planning process should also include evaluation planning.

We have stressed that planning should be an on-going process.

An evaluation plan will help you provide for this on-going planning.

You will have begun the evaluation process by completing a needs survey and by setting goals and objectives for your program.

### I. FORMATIVE EVALUATION

#### A. Purpose

Formative evaluation is important to the period of installation and debugging of a program.

It focuses on processes, operations, and workability.

It is the basis of replanning, fine tuning, or major surgery, as necessary.

The purposes of formative evaluation are:

1. To provide for improvement & strengthening of the program
2. To provide for growth
3. To determine future planning

B. What? When? Who?

These questions should be pondered and answered in the planning stages:

1. What information is to be collected?
2. For what purpose?
3. From whom?
4. By whom?
5. When?
6. Who will analyze?
7. Who will interpret results?

C. How to Collect Information

Observations
Interviews
Questionnaires
Record Keeping

D. What Kind of Information

Records of time
Records of student movement
Records of materials flow
Records of operating costs
Interviews with teachers, students, and parents regarding reactions to program
Questionnaires from teachers, parents, and students regarding reactions to program

ALL THIS INFORMATION BECOMES INPUT FOR FUTURE PLANNING SESSIONS.

The following pages contain examples of questionnaires that could be used for this information collecting.

SAMPLE EVALUATION MATERIALS

SAMPLE STAFF QUESTIONNAIRE

*Develop a set of questions that helps you collect the information you need or want.*

STAFF SURVEY -- CAREER EXPLORATION PROGRAM

Please circle the answers to the following questions that best describe your feelings toward our career exploration program.

1. Do you feel Project Discovery is worth having it specifically scheduled into the class schedule?

   a. Yes, I really feel it's beneficial to the students.
   b. Yes, as long as I don't have to be in charge of it.
   c. I could care less.
   d. No, it is just something to keep students busy.

2. How do you feel toward CSP?

   a. I feel it is a good program for the student(s) involved.
   b. No opinion.
   c. It's just a way to get the student out of the school -- no benefits for the student or the school.

3. How do you feel toward using your class time on ICEP activities?

   a. I can see the purpose of the activities and am glad to cooperate.
   b. I do it because I was told to.
   c. I do it because everyone else is doing it.
   d. I feel it is a waste of time.
   e. I refuse to do it anymore, or I have refused to do it from the start.

4. Was using the "QUEST" and the needlesort of use to anyone?

   a. It was great for the students.
   b. It kept the students busy for awhile.
   c. It was o.k. as long as I didn't have to work with it.
   d. It was really a waste of time, effort, etc.

5. Do you <u>see</u> any changes in the attitudes of the students working in the career exploration program?

   a. Yes, they know themselves a little better.
   b. Yes, they know more about different occupations.
   c. Yes, they know more about how my course can relate to an occupation later on.
   d. Yes, they are busier so they cannot cause as much trouble.
   e. Haven't really looked for any changes.
   f. There haven't been any changes.

6. How do you feel toward the second half of the semester regarding the career exploration program?

   a. Let's make it even better than the first half.
   b. Do we have to continue it?
   c. I'll struggle through it just like I did the first half.

7. Please list below:

   a. comments you have on the program that have not been covered in the previous questions.
   b. suggestions on how to improve the program.
   c. suggestions on how the career exploration committee can help you with the second half of the semester.

SAMPLE PARENT QUESTIONNAIRE

DID YOU HAVE CAREER EXPLORATION AT HOME?

Please put an "X" by the items you have heard your junior high boy or girl talk about.

_____ Project Discovery

_____ C.I.S.I.

_____ ICEP

_____ CSP

_____ A student working at _____, arranged by the school.

_____ Working with card decks and needlesort.

_____ Doing different types of activities in class, these activities being career and self-oriented.

_____ Seeing a film on think about a career, "I'd Rather Be".

_____ Doing shorthand, filing, typing, bookkeeping, or accounting.

_____ Covering or repairing a wall.

_____ Doing someone's hair, nails, make-up.

_____ Making cement, a brick wall.

_____ Working on a car fender, general auto body repair, small engines.

_____ Doing some plumbing.

_____ Working like a dentist, medical assistant, nurse.

_____ Working like a banker or bank teller.

_____ Doing religious work or working with senior citizens.

_____ Working like a waiter, waitress, grocery clerk.

_____ Working like a sales representative or a mail clerk.

_____ Working with slides (as in biology) or plants (as in a greenhouse)

_____ Evaluating my own abilities and interests.

_____ Gathering information on occupations I like.

Please use other side to make any comments you have concerning career exploration.

## Career Exploration Program Survey

During this semester you began work in the career exploration program.

We need to know how you feel about the program and what you have discovered about yourself and about careers and work.

Please answer the questions as honestly as you can.

Take your time!

---

1. I have..... (check all answers that apply to you):

____worked with C.I.S.I. (card decks, occupational briefs, Quest)
____worked with Project Discovery
____worked with career and self-orientation in my classes
____worked outside the school in the CSP program

Circle the answer for each statement that fits you best.

A = agree D = disagree DK = don't know

A D DK 1. Almost any career seems OK to me.

A D DK 2. I have been able to limit the number of careers in which I am interested.

A D DK 3. I know more now about what my intersts are than I did before beginning of this semester.

A D DK 4. I know more now about what I am best at than I did before the beginning of this semester.

A D DK 5. I know what areas of work I do not want to do.

A D DK 6. I know now more about different occupations than I did before the semester began.

A D DK 7. I have not learned anything new about myself.

A D DK 8. I have not learned anything new about the world of work.

A D DK 9. I need to consider my interests in choosing my career.

A D DK 10. There just isn't anything in which I am interested.

A D DK 11. I know what to look for in jobs which might be best for me.

A D DK 12. Since the beginning of this semester I've become more realistic about the job world.

A D DK 13. I know better now, how my subjects in school might help me in the future.

A D DK 14. Values (what is important to me) affect my decisions.

A D DK 15. My present decisions are affected by my past experiences.

A D DK 16. My friends have to make some of the same decisions I do.

A D DK 17. I know what career clusters are.

A D DK 18. I feel that the activities in my classes, that are self- and work-oriented, are helpful to me.

A D DK 19. I feel that Project Discovery helps me to decide what I might want to do in the future.

A D DK 20. I feel that the worksheets, connected with Project Discovery are helpful.

A D DK 21. I feel that I had enough help with Project Discovery.

A D DK 22. I had enough time to work on Project Discovery.

A D DK 23. I feel that the computer was helpful in giving me some ideas about possible careers.

A D DK 24. The activity where I found information on three occupations from my print-out was helpful.

A D DK 25. I feel that Orientation class is helpful to me in learning about myself and the world of work.

A D DK 26. I feel that the project is a waste of my time.

A D DK 27. I feel confused about this career exploration thing.

A D DK 28. I feel I am better prepared to make future decisions.

A D DK 29. It is hard to make decisions because I have so little control over what happens to me.

A D DK 30. Project I.C.E. has made me feel better about myself.

A D DK 31. Project I.C.E. will do me some more good next year.

Complete the statements with word(s), phrases, or sentences according to how you feel.

1. The idea of junior high students exploring through on-the-job experiences is...

2. Project Discovery is...

3. The computer was...

4. The project would have been better if...

5. The most valuable thing we did was...

6. I wish we would have...

7. I would describe the project as...

8. If my friends could be in the project, I would tell them...

9. Orientation class is...

10. The classroom activities are...

## II. SUMMATIVE EVALUATION

### A. PURPOSE

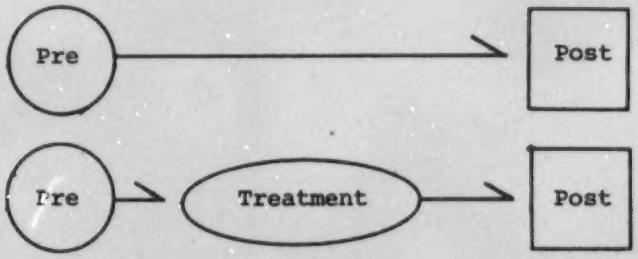
Summative evaluation is used to determine the achievement of stated program goals and objectives --- usually in terms of student learning or behavior.

These are the points to keep in mind as you plan for summative evaluation:

1. Obtain the best evidence possible that the target population has acquired the planned knowledge, skills, or behavior.
2. Show that the achievements were the result of the program:
   a. Demonstrate before to after change in target population
   b. Demonstrate no change in an equal group

### B. How To Do

The best way to show the achievement of goals and objectives is to use a pre-post, experimental-control evaluation design.




If you are willing to randomly assign target students --- half to the experimental group and half to the control group --- you can execute this powerful design.

Like all "cadillacs", it costs more.

When staff time and resources are in short supply, this design does not generally achieve its potential. However, it produces more certain results than other designs.

Compromise Designs

1. *assume no knowledge or skill at the beginning of the program
   *assume all demonstrated knowledge and skill to be the result of the program
   *measure at the end of the instruction of program

   (THESE ASSUMPTIONS ARE SCIENTIFICALLY UNSUPPORTABLE.)

2. *measure program and non-program students before and after

   (THIS PRODUCES NO CONCLUSIVE "EVIDENCE" THAT THE CHANGE IS A RESULT OF THE PROGRAM RATHER THAN SOME OTHER CAUSE.)

3. *measure program and non-program students after the program

   (THIS CAN SHOW PROGRAM STUDENTS WITH GREATER SKILLS, KNOWLEDGE THAN NON-PROGRAM STUDENTS; THERE IS LACK OF EVIDENCE THAT THE TWO GROUPS STARTED WITH THE SAME SKILLS, KNOWLEDGE, ETC.)

C. What To Measure

This is a frequent problem, but shouldn't be.

Your planning should have identified program objectives -- acquired student knowledge, skills, behaviors, attitudes -- for two purposes:

1. To guide in the forming of the program (planning)
2. To define necessary evaluation

The following list depicts areas of vocational development which may be labeled exploration.

Your program objectives may include behaviors in one or more of these areas.

a. Knowledge of values/goals regarding career/work
b. Experience in occupations/work
c. Knowledge of work/occupations in which interested
d. Knowledge of work/occupations in which ability exists
e. Knowledge of the exploration process
f. Knowledge of the decision process
g. Occupational career decision

D. How to Measure

The Southwest Iowa Learning Resources Center has developed instruments focusing on items "a" through "d".

An instrument entitled "MADE" contains scales relating to items "b", "c", and "d". These scales are known to be reliable.

There are two versions of "MADE".

*One version is usable with most students

*The second version contains larger type, and more explicit instructions and includes a cassette tape of the instrument questions.

"MADE II" is an instrument designed especially for I.C.E. programs.

It focuses on item "a".
The reliability of this instrument is being studied.

You may obtain information on these instruments from:

Southwest Iowa Learning Resources Center
401 Reed Street
Red Oak, IA 51566

(712) 623-4913

An order form for the "MADE" instrument and analysis follows this section on Program Evaluation.

Some additional instruments for measuring career exploration are:

* Comprehensive Occupational Assessment & Training System (COATS), Prep, Inc.; Trenton, NJ.

* The Self-Directed Search (SDS), Holland

* Comprehensive Career Assessment Scale, Jackson & Goulding, Learning Concepts, Austin, Texas.

* Hall Occupational Orientation Inventory, Hall; Scholastic Testing Service; Bensenville, Illinois.

* Vocational Preference Inventory; Holland; Consulting Psychologist Press; Palo Alto, California

* Minnesota Importance Questionnaire (MIQ); Weiss, et al, Industrial Relations Central University of Minnesota.

* Minnesota Vocational Interest Inventory (MVII); Clark; The Psychological Corporation; New York.

* Career Maturity Inventory (CMI); Crites; CTB/McGraw-Hill; Monterey, California.

* Ohio Vocational Interest Survey (OVIS); D'Costa, et al; Harcourt, Brace, Jovanovich; New York.

* Work Values Inventory; Super; Houghton Mifflin Co.; Boston, MA.

* The Assessment of Career Development; The American College Testing Program; Houghton Mifflin Co.; Boston MA.

## CHECKLIST

I. FORMATIVE EVALUATION

1. Type of collection instrument(s) decided:
   a. interview questions
   b. observation form(s)
   c. questionnaires
      * parent
      * student
      * staff
   d. record keeping forms
2. Timeline set for collecting information
3. All forms, questionnaires developed, typed, duplicated

II. SUMMATIVE EVALUATION

1. Type of instrument to be used determined
2. Timeline set for administering instruments
3. Instruments obtained
4. Analysis decisions made (who? when? etc.)
5. Instruments administered

ORDER FORM

"MADE" INSTRUMENT

---

PLAN A --- MATERIALS ONLY @$200.00/100 copies

_____No. copies regular version

_____No. copies alternate version
(includes one cassette tape)

100 Total copies $_____

---

PLAN B --- MATERIALS & ANALYSIS @$475.00/100 copies

_____No. copies regular version

_____No. copies alternate version
(includes one cassette tape)

100 Total copies $_____

---

ADDITIONAL INSTRUMENTS (minimum order - 50 copies)

_____No. copies regular version @ $13.00/50 $_____

_____No. copies alternate version @ $25.00/50 $_____

ADDITIONAL ANALYSIS (Plan B only)

_____No. additional analysis @ $2.00/instrument $_____

---

Bill To: Ship To:

_____ _____

_____ _____

_____ _____

Mail order form to: PROJECT DISCOVERY
Southwest Iowa Learning Resources Center
401 Reed Street
Red Oak, Iowa 51566

(3)

- ICEP
- PROJECT DISCOVERY
- C.I.S.I.
- CSP

## IOWA CAREER EDUCATION PROJECT

The Iowa Career Education Project was initiated in 1971 through the Iowa Department of Public Instruction.

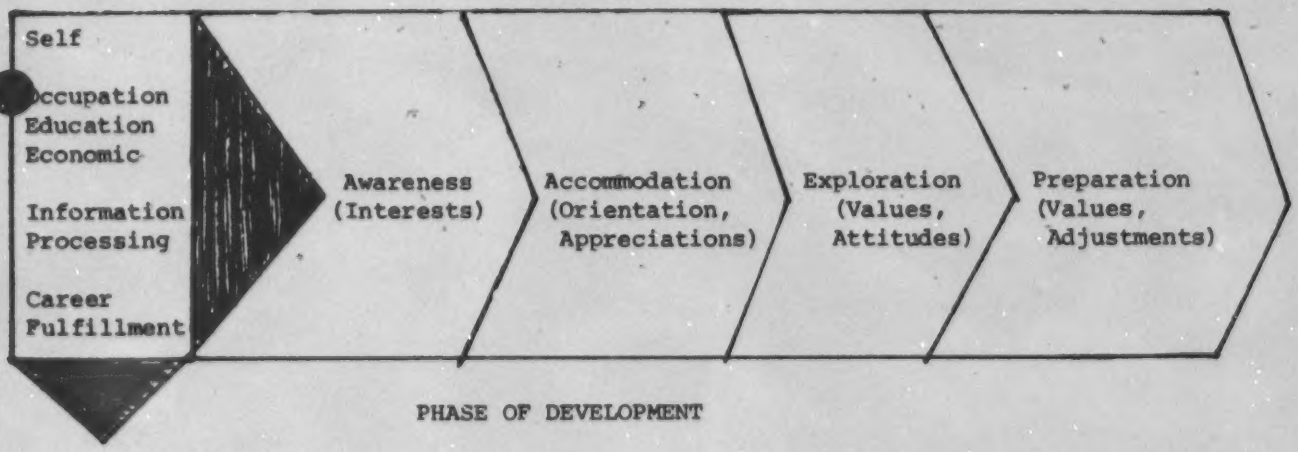
The purposes of this effort were to research, define, and describe an emerging concept of career education and to suggest possible approaches for implementation, K - 12.

A "Model for Career Development" was developed during this project. The Model shows the relationship of self and the world of work for all phases or stages of career development.

These phases of career development are:

| | |
|---|---|
| Awareness | Primary |
| Accommodation | Intermediate |
| Exploration | Junior High/Middle School |
| Preparation | High School/Post High School |

CAREER DEVELOPMENT MODEL




PHASE OF DEVELOPMENT

These guidelines and instructional materials are available from Career Educatio Division, Iowa Department of Public Instruction, Des Moines, Iowa 50319.

## Iowa Career Education Project (ICEP) Publications

*Career Development Model and Explanation
A Philosophy for Career Education
Career Decision Making in the Career Education Process
The Self-Concept & Career Education
Career Education & The World of Work
The Way We Work
Information Centers in Career Education
Evaluating Career Education Programs
Implementing Career Education in the School Curriculum
Self-Awareness Classroom Activities
Administrators Roles in Implementing Career Education concepts in the School Curriculum
Selected Occupations by Clusters for Use in Elementary Schools Kindergarten - Grade 6 (Staff Development & Career Curriculum Project)
Implementing Career Education Objectives in the Classroom - Awareness Phase
Implementing Career Education Objectives in the Classroom - Accomodation Phase
Goals & Objectives for Implementation of Career Education in Grades 7-12
*Implementing Career Education Objectives in the Classroom - Exploration Phase
Implementing Career Education Objectives in the Classroom - Exploration & Preparation Phase
Selected Occupations by Subject Matter and Occupational Clusters for Use in Secondary Schools

## EXPLORATION PHASE

"Implementing Career Education Objectives in the Classroom - Exploration Phase" will be useful in planning your career exploration program.

### Objectives

On pages 7-11 of the booklet are listed the objectives for the exploration phase of career development. These objectives can be used as a basis for structuring your total career exploration program. You can use the total set of objectives or select the objectives most appropriate for your situation. You may also want to rewrite or add objectives.

These main objectives are divided into three areas of concern: Self concept, World-of-Work, and Self and the World-of-Work. Under each area are listed specific objectives.

The following pages contain a listing of objectives under each of the three areas of concern.

CAREER EDUCATION OBJECTIVES

Exploration Phase - Junior High Level

Program Objective:

During the exploration phase the learner continues to compare personal characteristics with the knowledge gained from the exploration of careers. The learner begins to identify occupational areas that most closely align with his/her self-concept.

Self-Concept

1.00 The learner considers own developing maturity as continually influencing own self-concept.

1.1 Assesses personal interests.

1.2 Assesses developing mental and creative abilities in terms of an evolving life style.

1.3 Analyzes own physical abilities and potentials.

1.4 Acquires some long-term personal goals.

1.5 Relates to own emotional characteristics as a function of his/her total being.

1.6 Analyzes others' perception of self.

1.7 Recognizes reasons for variations in personal characteristics of self and classmates.

1.8 Recognizes that peer group relationships may change with evolving maturity.

1.9 Assesses established and changing social roles and norms in relation to self and determines how personal values emerge.

1.10 Identifies educational setting (home, school, community) as a possible aid in developing life skills.

1.11 Evaluates behaviors considered appropriate for the school and community settings.

1.12 Analyzes personal modes of learning, management, action, and operation.

Exploration Phase

1.13 Cultivates the ability to make decisions and analyzes the consequences of own decisions (problem solving process).

1.14 Assesses personal competencies such as experience, education, and skills.

1.15 Evaluates own abilities, personal qualities, aspirations, and values and their interrelationship to each other.

World-of-Work

2.00 The learner analyzes specific behaviors and socio-economic aspects relating to the world-of-work.

2.1 Identifies the implications of the concept of leisure time, vocation, and avocation as they relate to a person's life needs.

2.2 Describes organization within the work force.

2.2.1 Becomes aware of role, structure, membership, and leadership of labor unions.

2.2.2 Becomes aware of the role of management in the work force.

2.2.3 Becomes aware of labor relations including employer-employee responsibilities.

2.2.4 Recognizes governmental role in the organization and regulation of the work force.

2.3 Explores a wide range of occupations.

2.3.1 Describes specific educational and skill requirements of occupations.

2.3.2 Differentiates between job tasks.

2.3.3 Acquires knowledge of economic remunerations.

2.3.4 Investigates the training and personal requirements for advancement within a given occupation.

2.3.5 Acquires insight into differences in working conditions.

2.3.6 Distinguishes between occupations related to the production of goods and occupations related to the production of services.

2.4 Examines clusters of occupations.

2.4.1 Distinguishes the characteristics which are common among and between clusters.

2.5 Recognizes the nature of change within the work force.

2.5.1 Identifies that some occupations become obsolete because of progress in technology.

2.5.2 Sees the interrelationship between the law of supply and demand of workers and continual change in the work force.

2.5.2.1 Comprehends the impact of migration and immigration on supply and demand of workers.

2.5.3 Recognizes that the availability of human and natural resources affects career opportunities.

2.5.4 Becomes aware that changes in societal attitudes affect roles within the work force (equal rights, job status, roles, laws, labor unions).

2.6 Recognizes that work allows for the integration of the individual into the society.

2.7 Recognizes that at least some people must work if society is to survive.

2.8 Analyzes the economic aspects of the world-of-work.

2.8.1 Examines the role of financial institutions in today's economy.

2.8.2 Analyzes the effect of the law of supply and demand on the world-of-work.

2.8.3 Recognizes factors which influence remuneration and benefits of employment.

2.8.3.1 Recognizes skill development as a factor influencing remunerations.

2.8.3.2 Recognizes the impact of state and federal minimum wage and hour laws.

2.8.3.3 Comprehends the Social Security program as related to employment (application procedures, purpose, functions, responsibilities).

2.8.3.4 Recognizes federal and state income tax programs.

2.8.3.5 Recognizes various kinds of fringe benefits available to employees (insurance, retirement, sick leave, vacation).

2.9 Recognizes the educational setting as a place to gain direction and needed skills for the attainment of occupational goals.

2.10 Recognizes the process of seeking employment.

2.10.1 Becomes aware of the sources of assistance in seeking employment.

2.10.2 Recognizes how to apply for a job.

2.11 Becomes aware of the effect of international and national economic policies on employment possibilities.

Self and the World-of-Work

3.00 The learner explores careers, career change and how perceived personal potentials relate to selected careers.

3.1 Recognizes personal characteristics which relate to selected clusters of occupations.

3.2 Formulates tentative career expectations in terms of personal characteristics.

3.2.1 Recognizes that personal characteristics may make a career choice suitable or unsuitable.

3.2.2 Analyzes possible career directions compatible with personal characteristics.

3.2.3 Identifies personal reasons for wanting to change job types.

3.2.4 Describes the importance of personal characteristics in seeking employment.

3.2.5 Distinguishes preparations needed to pursue personal career directions.

3.3 Recognizes that there is continual personal change during career development.

3.3.1 Recognizes that personal characteristics change as the learner matures.

3.3.2 Recognizes that personal characteristics change as the learner experiences the world-of-work.

3.3.3 Recognizes that change in personal qualifications influences changes in career alternatives.

3.4 Develops an idea of the type of life style desired.

3.4.1 Relates desired life styles to occupational preference.

3.4.2 Realizes that individuals may choose a life style.

3.5 Becomes aware of the philosophy of work and leisure as influenced by cultural diversity and diffusion resulting from national migration patterns.

Classroom Activities

"Implementing Career Education Objectives in the Classroom - Exploration Phase" also provided assistance in approaches to writing activities to be used in the classroom during the exploration phase. A series of steps in the developing of the chosen activities are given. Development of activities may be taken on by individual teachers or by small groups.

SUBJECT MATTER MATERIALS & ACTIVITIES

ICEP

Available with this I.C.E. Manual is a collection of activities that have been developed by classroom teachers for use in infusing career education in the classroom.

These activities fall into the following curriculum areas:

Home Economics
Physical Education
Language Arts
Social Studies
Music
Art
Science
Math

Examples of activities from these materials may be found at the end of this section.

Kansas

Another excellent source of activities for use in this manner is the "Explore" manual from the Kansas Department of Education.

If you are an Iowa school, this manual is available to you through your AEA or from the Career Education Division, Department of Public Instruction.

Other states might contact the Iowa Career Education Division, Iowa Department of Public Instruction, Des Moines, Iowa 50319 OR:

Kansas State Department of Education
Career Education Division
120 E. Tenth Street
Topeka, KS 66612

IMPLEMENTING ICEP ACTIVITY

Initially, you may wish to attach a different title to this portion of your comprehensive program --- a title that best suits your school.

* It may be that your teachers already are involved in the use of career education activities such as discussed here. If so, you may want to collect and file these activities by subject area and grade level for use by the total staff.

* You may wish to involve teachers in the development of new activities. See the information on writing activities in the "Implementing Career Education Objectives in the Classroom - Exploration Phase" booklet.

* If you have access to the Iowa, Kansas, or other career education materials:

  - have teacher choose a specific number of activities to use in their classroom during the semester or year.

  - keep a record of the specific activities each teacher has chosen to avoid duplication; keep this record in a central location.

  - you may want to appoint one person to be responsible for making sure teachers identify activities to be done, for filing the materials for future reference, and for keeping a record of the activities selected and completed.

| ACTIVITY CHOSEN & GRADE | | | | | | |
|---|---|---|---|---|---|---|
| TEACHER | IOWA | IOWA | KANSAS | KANSAS | OTHER | OTHER |
| Smith | | | | | | |
| Johnson | | | | | | |
| Brown | | | | | | |
| Harris | | | | | | |
| Perry | | | Pg. 184 Grade B | | | |
| Vance | | | | | | |
| Carlos | | | | | | |

On 2' x 4' posterboard

EXAMPLE ACTIVITIES FROM THE

ICEP SUBJECT MATTER MATERIALS

RECORD OF
CAREER EDUCATION ACTIVITIES

Career Education Objective *1.10 Recognizes and utilizes the educational setting (school) as an aid in developing life skills.*

Teacher *D. Stephens*

School *Scranton*

Grade *7th - 9th*

Instructional Objective *The student will find enjoyment in becoming more proficient with basic arithmetic operations.*

Subject Area *General Math*

Integration into Curriculum: *Approximately two days used to construct the deck of cards. The game can be played at any time a lax period occurs or when a reward activity is desired.*

Activity: *Using blank lunch tickets or something similar, mark each quarter of the deck with a different geometric design (suit) systematically an arithmetic operation. Develop the list of all single digit ordered pairs. Picking at random, select ordered pairs to be "values" on each card.*

*The game can be played by 2-6 players. The dealer deals five cards to each player and then a card face up in the middle of table. This card indicates "trump" suit. Each player forms a strategy for playing his cards trying to take as many tricks as possible. All players judge whether the student "making his play" correctly calls the indicated sum, difference, etc., while following suit and trying to come up with the biggest result.*

Evaluation: *Teacher observation.*

Resources Used: *Blank cards, markers, knowledge of ordered pairs and arithmetic operations.*

Effectiveness of Activity: 1 2 3 4 5
Most Least

---

This activity involves the

Cognitive Process of Learning _____

Affective Process of Learning X

Psychomotor Process of Learning X

RECORD OF
CAREER EDUCATION ACTIVITIES

Career Education Objective 2.2.2 Becomes aware of the role of management in the work force.

Teacher Merle Chamberlain

School Lake City

Grade 7th - 9th

Instructional Objective The student will participate with a group to produce a newspaper including: writing, editing, proof reading, and layout.

Subject Area Reading

Integration into Curriculum: This is a five day activity that will conclude a journalism unit.

Activity: Prerequisites: Instruction on journalism techniques, various job descriptions involved, and duties expected of each in this project. Special emphasis will be placed on the managing editors of a newspaper.

Discuss the duties and responsibilities of each member in a group.

The students are to produce a 2 - 4 page paper to be reproduced for the entire grade. The group handles all aspects of the production including: writing, editing, art work, and layout.

Evaluation: The evaluation is based upon the finished product, the students' newspaper. Follow up could be a visit from Gordan Clark, Lake City Graphic.

Resources Used: The Des Moines Register Newspaper Kit - available free from the Des Moines Register.

Effectiveness of Activity: 1 (Most) 2 3 4 5 (Least)

---

This activity involves the

| | |
|---|---|
| Cognitive Process of Learning | x |
| Affective Process of Learning | x |
| Psychomotor Process of Learning | x |

RECORD OF
CAREER EDUCATION ACTIVITIES

Career Education Objective 3.2.5 Identifies specific educational and skill requirements for occupational entry in selected occupational areas.

Teacher Mike Sorenson

School Prairie

Grade Jr.-Sr. High

Instructional Objective The student will be able to play the role of a person in the community with a specific occupation.

Student Area Science

Integration into Curriculum: Beginning of the year activity will ascertain any resource available in your community. 3-4 days

Activity:

1. Each student (in pairs) will conduct a field interview of any person in community as per attached handout. As a possible added activity. Ask the teacher to help the students learn how to conduct an interview correctly.
2. Any and all information will be assimilated by the students in such a manner that both these students will be able to assume this community person's role.
3. Play the game "What's my Line?" Object of the role players is to stump a panel of volunteer parents. Object of parent is to guess the person in the comm.
4. The panel must only ask yes and no questions. The role player must not give any misinformation.

Evaluation: The panel of parents must guess the role player within a time limit of 10 minutes or 10 no answers. The role player will be awarded 5 points for each no answer the panel receives. If the panel guesses correctly the points are split accordingly. For example:

3 no answers - panel 35 points - role player 15
7 no answers - panel 15 points - role player 35

Resources Used: Tape recorder; community people and volunteer parents.

Effectiveness of Activity: 1 2 3 4 5
Most Least

---

This activity involves the Cognitive Process of Learning x

Affective Process of Learning x

Psychomotor Process of Learning x

## INTERVIEW QUESTIONS

What do you enjoy most about your work?

What are some rewards, besides money, that you get from your job?

What caused you to choose this job?

What other jobs have you had?

How did you find out about your job?

What did you want to be when you were younger?

How many different jobs have you had?

Have you ever had to move for a job?

How do you feel after a day at work?

What do you like to do after work?

Are you part of a team?

Why is your job important to you? to society?

Are you in charge of other workers?

How much education do you need for your work?

Have you had to learn new things in your job?

What are your hobbies?

Do you do anything for fun that you also do in your work?

Do you wish you had more leisure time? How would you spend it?

Do you have to work overtime?

Other:

EXAMPLE ACTIVITIES FROM THE

KANSAS EXPLORE MANUAL

EXPLORING values

Activities: Making a log of weekend activities
Sharing values with your friends

Objective: To explore personal values as they relate to leisure activity

DO YOU SHARE SIMILAR VALUES WITH YOUR FRIENDS?*

1. Fill in what you did last weekend. Pick the 3 most important values as evidenced by how you spent your time.

| | SATURDAY | | SUNDAY |
|---|---|---|---|
| 8 | | 8 | |
| 9 | | 9 | |
| 10 | | 10 | |
| 11 | | 11 | |
| 12 | Noon | 12 | Noon |
| 1 | | 1 | |
| 2 | | 2 | |
| 3 | | 3 | |
| 4 | | 4 | |
| 5 | | 5 | |
| 6 | | 6 | |
| 7 | | 7 | |
| 8 | | 8 | |
| 9 | | 9 | |
| 10 | | 10 | |
| 11 | | 11 | |
| 12 | | 12 | |

2. Share your values with friends. How do your values differ?

3. How do you suppose your grandparents spend their weekends?

---

*Adapted from an activity developed by the Career Education Project, Career Education: Learning with a Purpose (Sedalia, Missouri: State Fair Community College).

EXPLORING the influence of significant others on self

Activities: Discussing the work rewards and working conditions of occupations held by workers in the family tree

FAMILY TREE*

Objective: To identify some of the individual and environmental factors that influence career development

1. Have students discuss the adage "like father, like son" in a career context. Occupations are no longer always passed from father to son. Relate to the following topics in this discussion. Students may choose which topic they would like to research and report on. If not, briefly give background on the following:

   a. Hereditary monarchy
   b. Caste system
   c. Social class limitations (choose the particular period of history you wish)
   d. Famous families in history (Adams, Rockefeller, Kennedy families for example)

2. Ask students to make their own family tree showing the occupations held by their parents, grandparents and other relatives. They may need to take the exercise home for completion.

   a. Have each student in a small group talk about the differences or similarities in the careers of persons in their families.
   b. Discuss whether they feel that their relatives were happy in their jobs.
   c. Discuss whether they tolerated their jobs just for financial rewards.
   d. Under each career, write whether the job is data related, things related, people related or a combination of 2 or all 3.



*Idea inspired from activity in Project Discovery, Guidance Activities (Red Oak, Iowa: Southwest Iowa Learning Resources Center, 1975).

3. Discuss how times have changed since the adage "like father, like son". What about "like mother, like daughter"? This could lead to a discussion of such topics as: increase in technology, specialization increased options for women and minorities.

4. Have the students post their family trees if they wish. Some may not want to. Continue to stress the VALUE or DIGNITY of all types of careers.

EXPLORING careers in the Business and Office Cluster

Activities: Trying out work-related tasks

Objectives: To explore occupational clusters through hands-on, simulation, and observation experiences

EXPLORATION CONTRACT
FOR THE
ACCOUNTING AND BOOKKEEPING
PROJECT DISCOVERY PACKAGE

## EXPLORATION CONTRACT I

Instructions: Check the activities you want to explore. Discuss this with your teacher before beginning.

_____1. Obtain a Project Discovery Activity Completion Form from your teacher. Answer the questions on this form as you explore the Accounting and Bookkeeping Package.
_____2. After exploring the activities in this package, hand in the Project Discovery Activity Completion Form to your teacher.
_____3. Work the Word Search and Matching Exercise related to this package.
_____4. Discuss EXPLORATION CONTRACT II with your teacher.

## EXPLORATION CONTRACT II

Instructions: If you liked the activities in this package, you may want to explore other activities in this occupational cluster. Check the activities you want to explore that are listed below. Discuss this with your teacher before beginning.

_____1. Research a job related to this package using Occupational Outlook Handbook or other resources available in your library. Fill out a job Fact Sheet on this occupation. Appendix 2.
_____2. Explore from among the Mini-Packages in this cluster.
_____3. Participate in one or more of the activities listed in the following Teacher's Guide related to this cluster:
_____Money Jobs
_____4. Explore from among other Project Discovery packages in this cluster:
_____Filing _____Shorthand _____Medical Records Package

ACCOUNTING AND BOOKKEEPING
PROJECT DISCOVERY PACKAGE
Matching Exercise

Words students will encounter. Use in vocabulary games or spelling games:

| | | |
|---|---|---|
| ____ 1. | Bookkeeping | a. the summarizing, classifying, interpreting and communicating of the information recorded |
| ____ 2. | Accounting | b. a part of 100; expressing a ratio between given number and 100 |
| ____ 3. | Percent | c. pay after deductions |
| ____ 4. | Decimal | d. pay before deductions |
| ____ 5. | Depreciation | e. turning numbers around |
| ____ 6. | Gross Pay | f. a record of all cash received into the business |
| ____ 7. | Net Pay | g. a record of all cash paid out of the business |
| ____ 8. | Auditing | h. a summary of the income and expense accounts from the cash disbursements and the cash |
| ____ 9. | Transposition | i. a check that has not been paid by the bank as yet |
| ____10. | Cash Receipts Journal | j. an adjusting of the beginning balance and the ending balance on a bank statement |
| ____11. | Cash Disbursements Journal | k. adjust or settle |
| ____12. | Payroll | l. a request to the bank to pay a certain amount of money to the person or compnay named |
| ____13. | Wages | m. a system of retirement and health benefits into which a small percentage of a worker's earnings is put |
| ____14. | Salary | n. tax paid on a worker's earnings |
| ____15. | Income Tax | o. pay that is the same amount every month |
| ____16. | Social Security | p. loss of value; spreading the cost of items used by a business for several years over the number of years which it will be used |
| ____17. | Check | q. the recording of the financial transactions of a business |
| ____18. | Reconcile | r. the total earnings of employees for a certain time period |
| ____19. | Bank Reconciliation | s. pay for work by the hour |
| ____20. | Outstanding Check | t. examination of a company's books and records by a certified public accountant to determine if the books fairly present the company's financial condition |
| ____21. | Income Statement | u. expressing a fraction of a whole number as a part of 100 |

Answers, Page 305

ACCOUNTING AND BOOKKEEPING
PROJECT DISCOVERY PACKAGE
Word Search

R G R O S S P A Y X R E C E I P T S F
E D P E R C E N T D X C A S H D D X D
D E O A C H N T R C F D H D A T A T T
B P S R Z O B B O L I S D E C I M A L
A R T N Z O N B W E C B D R C I M X A
L E N D X L B C R R A D I M E K Z E C
A C B A N K X Z I K A C C O U N T S C
N I S I A U D I T L D S A S S X O D O
C A X T N S S B E N E T P A Y X T E U
E T W T O C B S P A Y R O L L Z A D N
A I C A Z Z O U S U B T R A C T L U T
D O X Z G O O M T R J O U R N A L C S
D N X Z F E W X E M O N E Y D S T T D

Word Search

Post
Gross Pay
Reconcile
Check
Net Pay
Payroll
Decimal
Percent
School
Pen
Depreciation
Income
Taxes
Salary
Receipts
Journal
Wage
Clerk
Cash
Earn
Bank
FICA
Deduct
Total
Balance
Audit
Write
Lend
Money
Sum
Add
Red
Subtract
Dime
Data
Accounts (twice)

80

EXPLORING careers in the Consumer, Food Services, Home Economics Cluster

Activities: Trying out work-related tasks

Objective: To explore occupational clusters through hands-on, simulation, and observation experiences

HOLD THE PICKLE

HOLD THE LETTUCE

HAVE IT YOUR WAY

1. Point out to the students that there are a variety of fast food establishments in the country. Some of these are McDonald's, Burger King, Hardee's, Pizza Hut, and Kentucky Fried Chicken. Can you think of others? Point out the fast food establishments in your area. Plan a field trip to one of these establishments.[1]

2. Ask the students to list some general characteristics of fast food places of business. Some may be:

   Customers obtain their own food
   Prices seem lower than other restaurants
   Menus are limited
   The buildings are small
   Most have parking lots around them

3. Have the students list the kinds of jobs they saw on their field trip.

4. Have them observe food being prepared. Note how food passes from one work station to another until it's completed and ready to serve. For example, students will see food passed from a cooking station to an assembling station to a holding station and eventually to the customer.

---

[1]The core ideas for this activity came from "Three Burgers, No Catsup!" developed by Peter Finn and Jane Lawson, Career Education Activities for Subject Matter Teachers, Grades 6-9 (Cambridge, Mass.: Abt Publications, Inc., 1975) and from Marilyn Kay McFarland, Exploring Careers In Hospitality and Food Service (Bloomington, Ill.: McKnight Publishing, 1975).

5. Have students simulate what they can in establishing their own fast food assembly line using the actual foods. Have students perform the functions that are practicable in a school setting. Follow the process used in a fast food franchise operation. Point out that franchises are large national organizations set up to serve the local franchise businesses. Local managers pay a fee to use the franchise (McDonald's, for example). The franchise then provides the local manager with supplies and services. Ask the students: Why would McDonald's be able to buy at a better price than a private small independent restaurant? The answer should be: They always buy in quantity.

   Have students apply the following process in a job simulation.[2]

   1. Food and supplies are ordered from franchise suppliers. Ordering will take place.

   2. Food is delivered. A manager checks the invoice (itemized bill) to be sure everything that was ordered is delivered. If it is there, the invoice is signed. Next, food and supplies are stored and ready for use.

   3. Grilling Station: The worker at the grilling station removes patties from the freezer and cooks them.

   4. Toasting Station: Buns are toasted.

   5. Condiment Station: Condiments (catsup, mustard, pickles, etc.) are placed on the bottom of each bun.

   6. When hamburger patties are cooked, they are placed on top of dressed crowns and bottom half of buns are laid on top.

   7. Wrapping Station: Hamburgers then pass to the wrapping station where they are wrapped and placed in a holding bin which keeps them warm until they are served.

   8. Soft Drink Station: Soft drinks are being poured by another worker.

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[2]Process adapted from materials in the following reference: Marilyn Kay McFarland, Exploring Careers in Hospitality and Food Service (Bloomington, Ill.: McKnight Publishing, 1975).

The following workers will be needed to assemble the Super Dooper Burger:

1) Manager
2) Cook
3) Toasting Cook
4) Wrapper Worker
5) Soft Drink Worker
6) Cashier

French fries and milk shake stations have been left off.

Have students set up enough food to feed _____people. Have them set up the assembly-line process. Involve the entire class in math problems related to buying supplies and pricing, etc. They could try the assembly-line process with peanut butter-jelly sandwiches. Also, have them experiment with having each student go through all of the steps on his own or using the assembly-line team method. Compare the efficiency of both methods. Have students explain why the assembly-line method is used. Encourage students to stress: friendliness, scrubbed hands, teamwork, cleanliness and courtesy when working on the project.

Other Activities:

1. Ask students to evaluate economic and societal changes that have caused the increased number of fast food industry businesses in the past 20 years: lower cost (might mention increase in use of automobile), people are in a hurry, both parents are working, etc.

2. Ask them how they think this has affected family meals and visits around the table at home?

3. Ask the students to calculate the amount of paper and plastic products used for the following order at a fast food establishment:
   1) Carry out carton
   2) Large coke
   3) French Fries
   4) Hamburger
   5) Dessert pie

   Discuss the pros and cons of the use of this much paper and plastic (pro or con to environment). What would happen if there was no supply of paper and plastic?

4. Some of the students may want to learn about how to obtain a franchise entitling him/her to operate a fast food business. Here are 2 addresses to write:

   McDonald's Corporation
   One McDonald Plaza
   Oakbrook, Ill. 60521

   Kentucky Fried Chicken
   1441 Gardiner Ln.
   Louisville, KY. 50213

5. Have these students interview the managers and/or workers at a fast food establishment during off hours.

6. Introduce the term entrepreneur. Have students investigate success stories of persons who started the well-known fast food industries. For example, Frank L. Carney, founder of the first Pizza Hut, was only 19 years old when he founded the first Pizza Hut in 1958. At that time, he was a student at Wichita State University. He is now president of Pizza Hut International, a chain which numbers 2,123 huts, including Pizza Huts in 11 foreign countries. In 1975 he was president of the International Franchise Association; and, in 1974, he received their Silver Plate award in the Fast Service Restaurants category.[3]

7. Ask students to express opinions on how some fast food industries advertise. Have them sing some of the popular jingles: Ronald McDonald song, Finger-lickin Good song, and Have It Your Way song. Why is so much money invested in advertising? Mention the floats sponsored by McDonald's in the Orange Bowl Parade, the McDonald's national marching band, etc.



[3] Hesston Record, February 19, 1976.

DO YOU USE MATH IN YOUR WORK?

Objective: To realize that education and work are inter-related

Observe a person on the job (your parent, relative, neighbor, or school worker) for a few hours. Did the worker use any math skills on the job? Fill in the following observation sheet and share your answers with the class:

1. Occupation being observed: _____

2. What is the person doing on his or her job? (Be specific) ___
   _____

3. Did he or she use any mathematics skills? Yes____No_____

4. Did it seem to play a large or important part in the job?
   Yes_____No_____ Why? _____

5. What kind of mathematics skills were used?
   Addition _____
   Subtraction_____
   Multiplication _____
   Division _____
   Other (specify if possible) _____

6. Did the person seem to like his or her job?
   Why?/Why not? _____
   _____

7. Do you think the person is doing a good job? _____

8. Would you like to have a similar job? Why or why not? _____
   _____

FANTASY LAND

Objective: To recognize the personal and social significance that work has in the lives of individuals.

Rewrite a children's story, the Little Red Hen, for example, adding comments about the occupations of the various characters, their working hours, lifestyles, etc. Then retell your story to the class, using voice changes and bodily action, pretending the class members are young children.

## OCCUPATIONAL GAMES

Objective: To explore many occupations and to describe differences in terms of tools used, tasks performed, and skills required for entrance.

OCCUPATIONAL FISH BOWL: Have the students compose 5 questions about occupations. Write these on a piece of paper and drop them in the bowl. Each player draws 5 from the bowl. The object of the game is to answer as many questions as possible.

OCCUPATIONAL QUESTIONS: Choose an occupation and research it. Do not tell anyone else what job you have picked. Choose teams and take turns having members of your team try to stump the other team, who will ask questions which can be answered either "yes" or "no." Set a time limit on how long teams may ask questions. The team guessing the most jobs with the least amount of questions wins.

OCCUPATIONAL SALAD: Prepare in advance 100 green paper lettuce leaves with the name of an occupation on each. Use the Job Bank, Appendix 1. The leader tosses the salad and then offers leaves to the guests. Players must define the occupation and tell what the worker does. The next leaf is drawn until the bowl is empty.

SCRAPBOOK

Objective: To recognize the personal and social significance that work has in the lives of individuals at varying levels within the occupational structure.

Make a career scrapbook containing pictures of people in various jobs, poems about occupations, summaries of books or stories about workers, and creative writing of your own about jobs, leisure time and school.

A SKELETON STORY--RATTLE YOUR BRAIN

Objective: To realize that education and work are inter-related

Fill in the following story with the following parts of speech.

(Proper Noun) was (Adjective). (Pronoun) had just come out of the personnel office of the (Proper Noun) company. (Pronoun) had just been hired as the (Noun) in the (Noun). She/He started work on Monday. He/She dressed in a (Noun). His/Her first task was to (Verb) the (Noun). (Pronoun) was very (Adjective) about the first day of work. He felt (Adjective) because there was so much to learn. Then she/he met the (Noun) in charge of (Gerund), who reassured her/him that he/she would be working on (Noun) within a week. He/She reminded him/her of the fringe benefits of the company. There are (Adjective Noun), (Adjective Noun), and (Adjective Noun). Some of the duties of his/her job were: (Verb Noun), (Verb Noun), and (Verb Noun). At the end of the first day of work he/she (Linking Verb) (Adjective).

CAREER INFORMATION SYSTEM OF IOWA

What is the Career Information System of Iowa (C.I.S.I.)?

The Career Information System of Iowa is a career guidance system with two major components. It is designed basically to enable users to explore the "world-of-work" and their relationship to it.

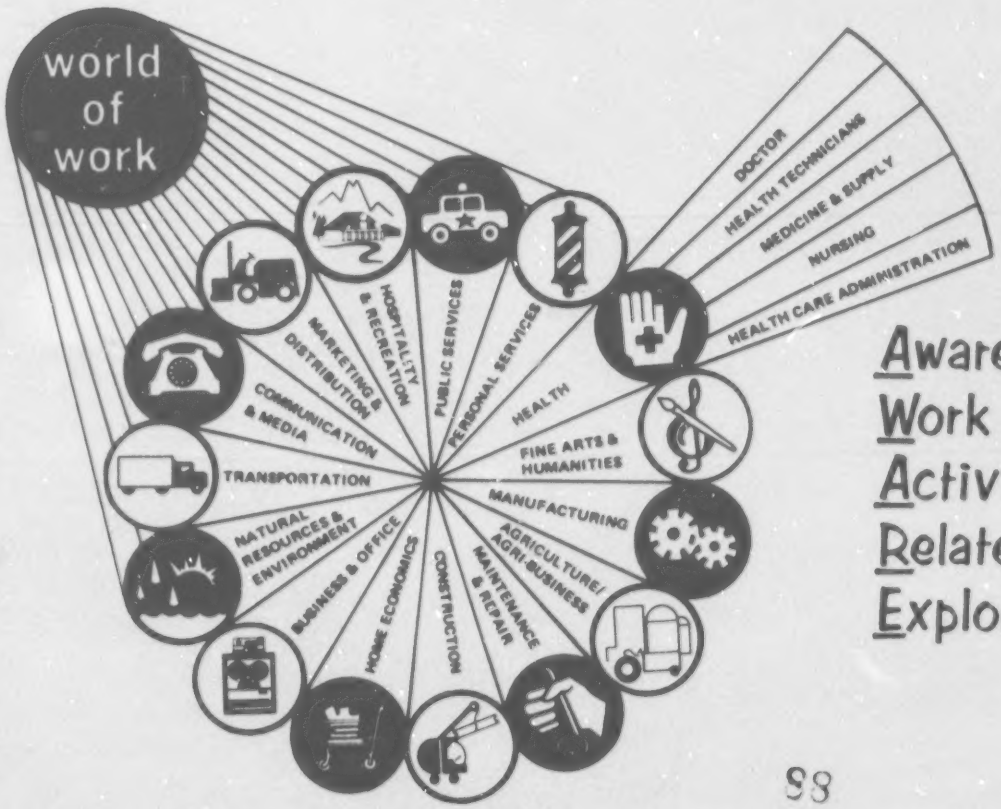
THE COMPONENTS

AWARE

One of the components available from C.I.S.I. is AWARE (Awareness of Work Activities and Related Exploration). These materials are designed primarily for use by students and teachers in upper elementary, junior high/middle school, and special education/special needs programs.

The AWARE tools include a needle-sort deck and User Handbook. These enable students to explore career clusters and job families. They assist students in relating self to school to the world-of-work.

What's in the User Handbook?




**AWARE**
**USER HANDBOOK**

Awareness of
Work
Activities and
Related
Exploration

1. Self-Exploration Activities

   Before students are exposed to activities dealing with the world-of-work, they are introduced to activities to help them learn about themselves and their feelings.

2. Exploring the World-of-Work

   Students are given instructions on how to use the deck of needle-sort cards. By using the "sorting" processes, they learn about career clusters and job families. Students may also sort the cards by starting with a school subject they enjoy. The job family cards related to the school subject fall out in this sort.

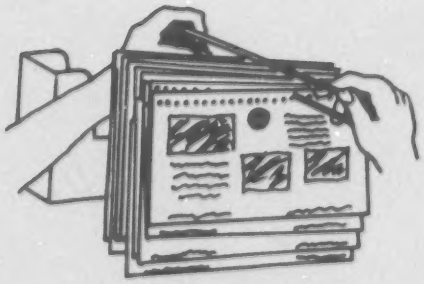
3. Putting It All "Together"

   Students are provided with space for summing up the things they have learned about themselves in relation to the world-of-work, and what they can do both in and out of school to find out more about the career clusters and job families in which they have the most interest.

What's on the Needle-Sort Cards?

The cards in the needle-sort deck provide students with information on each of 15 career clusters and the 5 job families in each cluster.

The back sides of the job family cards provide students with activities they can do both in and out of school to learn more about a particular job family.



## PROCESS

The second C.I.S.I. component is PROCESS (Process of Reviewing Options through Career Exploration and Self Study). The PROCESS materials are designed for in-school and out-of-school youths and adults seeking career direction and/or up-to-date information on occupations and education/training opportunities. The materials build on the concepts presented in AWARE.

The PROCESS tools include a User Handbook, a needle-sort deck, and/or interactive printing computer terminal, plus extensive occupational and education/training information delivered on microfiche or printed briefs.

### What's in the User Handbook?

The 10-step career decision-making process is described below:

1. Self-Exploration Activities

   Activities to help users learn about themselves and their feelings.

2. World-of-Work Exploration Activities

   Users learn about career clusters, job families and clustering by function and setting.

3. Self in Relation to World-of-Work Exploration Activities

   Activities to help users learn about:

   - nature of work personalities
   - abilities
   - physical activity related to jobs
   - preparation for a career (schooling)
   - earnings
   - working conditions
   - location of work

4. The QUEST

   This instrument is a 21-item self-perception questionnaire which relates self to specific occupations.

5. Sorting Occupations

   Users are given instructions for sorting the occupational titles using the needle-sort card deck and the computer terminal.

6. Occupational Exploration

   To assist with exploration, users are given an Index of Occupations and an Educational Institutions Index which lists the post-secondary education/training institutions within Iowa. Information on occupations and education/training opportunities can then be accessed on microfiche, from the computer, and in the printed briefs.

7. Occupational Exploration in Relation to Self Activities

   This step lists activities for helping the user learn more about him/herself in relation to the occupations identified through the sorting activities.

8. Options vs. Values Activity

   This activity assists users in thinking about what values are important to them and their relationship to the world-of-work.

9. Decision-Making Activity

   After reviewing the first eight career decision-making steps, users determine a career choice WHEN integration of self and the world-of-work has been achieved.

10. Plan of Action Activity

    Users formulate a plan of activities and a timeline to be met in making their career decision become a reality.

What's on the Needle-Sort Cards?

The cards in the needle-sort deck provide students with information on approximately 93% of the occupations within Iowa in which workers are employed. Each card has a description of its occupational title and is coded for the QUEST responses and for sorting by "function" cluster and "setting" cluster.

Occupational Information

Occupational information is contained on microfiche titled "Occupational Briefs" and in printed form. The occupational descriptions or briefs are listed in alphabetical order by title on the microfiche. After locating the title of interest, users place the microfiche in a microfiche reader. The briefs provide users with job descriptions, information on working conditions, abilities required, educational requirements, expected earnings, etc.

## Educational Information

Educational information is contained primarily on microfiche and in printed form. The Educational Institutions Index lists post-secondary Barber, Business, Cosmetology, Nursing, Trade and Technical Schools, two- and four-year Public and Private College and Universities, and Area Schools within the state of Iowa. The microfiche contains information on programs and majors, as well as details describing Apprenticeship Training and Military Service opportunities.

## HOW, WHEN & WHERE TC USE C.I.S.I.

### Planning

1. C.I.S.I. personnel can provide and/or arrange for training workshops on the use of the materials.

   Determine who will be responsible for C.I.S.I. In general, the school counselor is in charge of implementing career exploration and career counseling. However, these materials are also found in libraries, media centers, etc., as well.

2. At a local in-service meeting, demonstrate the system to your faculty.
   Have staff members use the materials.
   Staff members usually become enthused about C.I.S.I. when they get the chance to try it for themselves.

3. You should plan on providing more than one deck of cards for use with groups.

4. Some I.C.E. participants recommend the use of the AWARE materials with the younger students in the building.
   This may be 6th or 7th graders, depending on your school structure.

   Users then recommend the use of the PROCESS materials with the older students.
   This usage may depend on the amount of career awareness activities students have been exposed to in their upper elementary experience.

******

Information on C.I.S.I. materials and workshops:

C.I.S.I.
Department of Public Instruction
Grimes State Office Building
Des Moines, IA 50319
(515) 281-5501

Implementing

1. Most I.C.E. participants recommend using the materials in the classroom setting. Many suggest use of the System in the English or Social Studies classrooms. The counselor may instruct the classroom teacher in the use of the materials or come to the classroom to conduct the activities.

2. Other alternatives include use in a "careers" class or in a subject area class, e.g. science, for the study of occupations related to the subject.

   C.I.S.I. activities may be done in small groups or on an individual basis.

3. C.I.S.I. provides you with a good beginning point for your career exploration program. It also provides a jumping off point for other exploration activities (Project Discovery, ICEP, CSP).

   Students should be given the opportunity to redo C.I.S.I. activities after their exploration of Project Discovery packages and after a CSP experience and because interests and/or self-perceptions change.

4. You may consider using the information gathered through use of C.I.S.I. (and other exploration experiences) to help students as they schedule their next year's or their proposed high school programs. This can be done with the student and parents during conferences and referred to as appropriate during the school year(s).

# PROJECT DISCOVERY

## PURPOSE

The goal of Project Discovery is to provide students with realistic, varied simulated work experiences.

These experiences are used to increase students' occupational base, increase their awareness of what they like and do not like, and increase their awareness of what they may have the abilities to do.

## THE MATERIALS

Project Discovery consists of a set of career exploration packages and a guidance component.

### The Packages

At present, the Project Discovery exploration system consists of 32 packages, with 6 additional packages planned for release in February of 1980.

(See end of this section for list of package titles.)

A Discovery package consists of both software and hardware materials.

For Project Discovery information:

Philip Olive
Southwest Iowa Learning Resources Center
401 Reed Street
Red Oak, Iowa 51566
712-623-4913

### Software

The software portion of a package consists of student instructions, and accompanying types, filmstrips, charts, and flipcharts.

The student instructions are presented in a clearly worded, attractive format. The style of the package is adapted to the package subject. Instructions for many packages are printed on plastic and are practically indestructible.

The instructions are written at the sixth grade reading level. A Special Edition version of some packages is written at the second-fourth grade reading level.

Each package has an introduction and a number of activities. The activities proceed from simple to complex, so that students may have success at the beginning of a package. The instructions lead the user step by step through the tasks to be performed.

### Hardware

Most of the materials required for the completion of package activities are included in the package. Schools must supply items normally found in a school setting and those that are impractical to include in the package.

Consumable are kept to a minimum in each package.

## Guidance Component

The guidance component consists of a Guidance manual, Instructor's Notes for each package, a student record-keeping system, and a 10 minute 16mm film.

### Instructor's Notes

The Instructor's Notes for each package provide practical and theoretical information for package implementation.

Package activities and all materials are listed, plus materials or equipment the school must provide.

Specific suggestions for implementing each activity are given.

The skills and required knowledge (student) are listed.

The relationship of the package to other curriculum areas and to other PD packages is discussed. For example, the Plumbing package is relevant to math, science, and industrial arts courses.

Suggestions for activities students might engage in following their exploration of a package are listed.

### Film

A 10 minutes 16mm film entitled "I'd Rather Be" is included as part of the guidance component. The film is an introduction for students to the philosophy of career exploration and the content of Project Discovery. The film is also a good media piece for use with staff, parents, and community groups.

Guidance Manual

Participants in a career exploration program need help in focusing the meaning of their experiences.

The guidance manual consists of guidance activities to be used with students as they gather and process career and self information. The activities include discussions, games, fantasizing, and information analysis. An example of an activity is provided at the end of this section.

Guidance activities are provided for different stages in a student's exploration. There are activities for pre, during, and post package exploration.

Student Exploration Experience Chart

The student exploration experience chart provides a means of recording packages the student has completed or attempted, and how she/he responded to the package activities.

PLANNING AND IMPLEMENTATION

A. Inservice --- Core Staff

The developers of Project Discovery have prepared a two-day inservice workshop designed to help adopters understand the entire system and also plan for implementation in their settings.

This workshop is appropriate for all those who will be supervising package activities or guidance activities. It would also be useful for administrators, aides, and others who will be helping students learn about the world of work.

Day 1

The workshop begins with slides and a film on the development of Project Discovery and on the concept of career exploration.

The Guidance Component is introduced next, followed by a sample guidance activity.

The afternoon is devoted to exploration of an actual PD package.

Further guidance activities are used to introduce and summarize the exploration experience.

Day 2

On the second day, a second package and associated guidance activities are conducted.

The remainder of the workshop is devoted to developing local implementation plans. Project Discovery staff offer assistance in planning the physical facilities, staff assignments, scheduling of students, and resupply/inventory activities for local sites. A series of installation objectives and checklists to help participants plan a smooth implementation are presented.

B. Local Planning

1. If possible, visit a school or institution in your locale presently using Project Discovery.

   (The developers of PD can supply you with this information).

2. Determine the mode of delivery or approach you will use.

   Project Discovery materials can be implemented in a number of ways. It is completely transportable; the packages can be used independently.

   Here are some typical types of implementation approaches:

   Resource Room

   This approach can serve a small number of students well, usually those assigned to the resource room for additional help.

   The resource room teacher can often help students have a positive experience with the packages.

   The fullest use of the packages cannot usually be made in this limited space. This approach is useful for adopters wishing to start with a small program that can be built on each year.

   Career Exploration Center

   Such centers are usually larger rooms that can accommodate more students and more packages. Career information sources may also be made available in centers. They are adaptable to drop-in and individualized learning. This approach involves more staff, some duplication of equipment and materials already elsewhere in the building, and loss of space for other purposes. In addition, space for quiet activities and guidance activities may be hard to locate.

Class Room Infusion

This approach usually divides the packages among a number of classrooms, cutting down on space needs and facilitating many students working with one or more packages. The concentrated experience of package exploration tends to be diluted by other experiences (guidance, career information, field trips, etc.)

Mobile Unit

This approach serves spread-out rural populations effectively. It tends to be costly and offer only limited time for package exploration.

3. Facilities

Consider and list your facility needs in relationship to:

- building(s) to be served
- students to be served
- times of day the target students are available
- modifications required for each available facility
- possible available facilities
- staff available for administering the packages

The facilities you require will depend on the type of implementation plan and mode of delivery you have selected.

a. If you are planning to use the career exploration center approach, you will need one large room to house all package activity.

You will need to separate the room into areas suited to particular packages: dirty, noisy activities (Auto Body Repair, Plumbing, etc.); clean and quiet activities (Accounting & Bookkeeping, Shorthand, etc.); and activities that require a sink or water (Greenhouse, Health, etc.).

The Instructor's Notes for each package described the type of facilities and environments needed.

b. Multiple Classroom

Separate the packages into the rooms that provide the equipment and facilities needed for the packages:

- the industrial arts laboratory for Auto Body, Plumbing, Electricity, Machine Trades, etc.

- the Home Economics classroom for Waiter/Waitress, Health, Hair Care, etc.

- the business classroom or other room for Accounting, Advertising & Editorial Design, Shorthand, etc.

These are only suggestions --- use your particular situation and available space for planning.

4. Staffing

List the staff available to you that meet the following criteria.

- are willing to put forth the extra effort needed to establish a new program
- believe in the concept of individualized instruction
- are willing to work as a team with other staff members to provide common student outcomes
- are willing to enter into small groups and one-to-one counseling situations with students

List staff members who would be the best at the following tasks:

- providing counseling and guidance
- keeping student records
- administering each package --- while expertise in specific package knowledge is not necessary, use your staff's talents and interests.
- keeping packages supplied with consumable items --- you may consider using a student or aide for this task.

Attempt to draw up a schedule that will allow students to have access to facilities and staff at specified times of the day and week and fit into all other schedules.

Evaluate available staff in relation to the various facility arrangements being considered and available time in the daily schedules.

- which staff members can be scheduled together at each period of the school day
- does this time coincide with availability of facilities at any time
- are the target students available at those times when staff and facilities' availability coincide.

## D. IMPLEMENTATION

### 1. Staff Requirements

The first requirement for the use of PD is that supervisors of package activites and guidance activities be thoroughly familiar with the content of each. The best way to achieve this is by working through package activities and this is strongly suggested for each package the teacher or aide oversees.

Staff members should be thoroughly familiar with package purposes, content, and requirements as discussed in the Instructor's Notes. The details of equipment operation and the purposes of specific activities cannot be effectively conveyed to students unless the package supervisors are thoroughly familiar with the materials.

Those leading the guidance activities should understand the Guidance Component and the purposes and methods of the activities presented therein.

### 2. Pre-Project Discovery

a. A letter should go home to the parents of involved students, briefly explaining PD and inviting them to an orientation assembly for students' use and parents.

b. Orientation Assembly (for students and parents)

1) Show the PD film "I'd Rather Be".
2) Have the PD materials on display.
3) Speaker:
   - explain the importance of career exploration
   - explain the objectives, purposes and expectation of this program/project
   - hand out a list of the packages for students to choose from
   - hand out timecards, Student Exploration Experience Charts, or any other materials you have devised for students use
   - explain guidelines, "rules" that will govern the use of PD materials

4) Entertain questions

c. Student Package Selection

Have student rank packages in the order they wish to work on them.
Have students choose the packages they would like to do the most.
Have students choose the packages they would not be interested in exploring.

(Many students prefer to work only in areas they are familiar with, and never experiment with those which are strange to them.)

d. Student Package Assignment

A counselor or teacher must go through the students' package selections and assign students to the first PD package they will explore.

It is good to assign students to a package of their first or second choice the first time, if possible. Subsequent packages should be the result of counseling after interaction with the first package. For students at the junior high and middle school age level, exploration should be to try out many career possibilities, not to decide on a career. Students should explore packages to determine their dislikes as well as their likes.

e. Package Exploration

Students should be allowed to explore a package at their own pace. The staff person in the room should be available to supervise, counsel, answer questions, and aid if needed. Caution --- DO NOT TEACH. The student is there to explore.

Students should progress through the package, ideally to completion. If the student wishes to discontinue her/his experience with a package, this should be allowed. You may wish to set up a procedure for discussing the reasons the student wishes to discontinue a package. Some supervisors have selected the number of activities in each package the student must complete before being able to terminate. This is especially needed for students who habitually begin assignments and never complete them. The student should be able to satisfactorily convince you that he/she dislikes the activity, hasn't the abilities needed, etc.

f. Package Completion

Following package completion, students can do follow-up activities connected with the package. These could include interviews with persons in the field explored, occupational information activities (C.I.S.I., filmstrips, cassette tapes, etc.)

g. Guidance and Counseling

Activities are provided in the PD guidance manual for both pre and post package exploration. Students must have some information processing following their experience with a package, as well as any other career exploration activities.

Information gathered through this processing should be recorded in some way in the student's records.

## PROJECT DISCOVERY PACKAGES

MASONRY
PLUMBING
WALL COVERING
ELECTRICITY

AUTO BODY REPAIR
SMALL ENGINE REPAIR
TRUCKIN'

ACCOUNTING AND BOOKKEEPING
SHORTHAND
FILING
MAIL HANDLING

SALES REPRESENTATIVE
GROCERY CLERKING
BANKING & CREDIT OCCUPATIONS

SO YA WANNA BE AN ARTIST
ADVERTISING & EDITORIAL DESIGN
PRINTING PROCESSES

WORKING WITH SENIOR CITIZENS
LAW ENFORCEMENT
RELIGIOUS SERVICE CAREERS

GREENHOUSE WORK

WAITER/WAITRESS
CLEANING MAINTENANCE

PRELIMINARY HEALTH EXPLORATION
MEDICAL PATIENT CARE
MEDICAL EMERGENCY SERVICES
DENTAL CARE
MEDICAL RECORDS
BIOLOGICAL SCIENCE & TECHNOLOGY

SKIN & NAIL CARE
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Available February 1980

Drafting
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Animal Care
Meteorology
Retail Sales
Upholstery

INSTRUCTOR'S NOTES
FOR
CLEANING MAINTENANCE

## INTRODUCTION

This package tries to impress upon students the importance of cleaning and maintaining large buildings such as schools, hospitals, etc. Perhaps students will come to appreciate more the work done by persons involved in this type work.

### Activities in Package

Activity 1 - Desk Top Cleaning
Activity 2 - Chalkboard Cleaning
Activity 3 - Inside Window and Mirror Cleaning
Activity 4 - Outside Window Cleaning
Activity 5 - Wall Washing
Activity 6 - Dust Mop Sweeping
Activity 7 - Wet Mopping and Disinfecting Floors
Activity 8 - Restroom Cleaning
Activity 9 - Tile Refinishing
Activity 10 - Operating Electric Scrubbing and Polishing Machine (optional)

### Materials in Package

1 set student instructions
2 sets Instructor's Notes
divided bucket
aerosol cleaner
sponge
furniture polish
reusable wipes
plastic bucket
chalkboard cleaner
mop bucket & squeezer
squeegee & handle
all-purpose cleaner
floor finish
masking tape
creme cleaner
glass cleaner
Jani-carrier
dust mop & handle
dust pan
counter brush
"Wet Floor" caution sign
wet mop & handle
window brush & handle
bowl swab
disinfectant cleaner
bowl cleaner
floor tile
dust mop treatment

### Materials Needed

water
chalkboard
electric scrubbing & polishing machine (optional)
student desk or table
restroom

## COMMONALITIES

building custodian
housekeeper (hotel, dormitory, hospital, etc.)
housekeeper assistant

## IMPLEMENTATION

Most activities may be done independently of one another, thus accommodating a maximum number of students.

Students are constantly reminded throughout the package of safety factors when using chemical cleaners, having wet floors, etc. Use of strong chemicals is kept to a minimum by using the pre-measured packets of cleaning supplies.

Students will need access to certain items in the regular classroom - desk, chalkboard, floor, windows - as well as access to outside windows and a restroom. More than likely arrangements will have to be made with building administration and the custodial service for the restroom cleaning, wet floor mopping and outside window cleaning.

Activity 10 is optional and would require supervision and demonstration by the custodian or someone else familiar with operating a large scrubbing machine.

## COMPONENTS

### Required Knowledge

For most activities no previous knowledge is required. Activity 8 requires experience with Activity 7.

### Manipulative Skills

All activities require essentially the same manipulative skills - use of gross motor skills when using aerosol cans, sponges, rags, mops, etc.

### Conceptual Skills

Activity 1 - understanding several reasons for keeping furnishings such as desks clean
Activity 2 - realization that a special technique is required for cleaning a chalkboard without causing streaking
Activity 3 - understanding of the basic method of wiping a surface; understanding why windows should not be cleaned while the sun is shining directly on them
Activity 4 - understanding the difference between cleaning inside and outside windows

Conceptual Skills - Cont.

Activity 5 - understanding why in some institutions wall washing is important to the health of residents
Activity 6 - understanding that often just dust mopping is all that is necessary for a floor - other times it must be done prior to wet mopping
Activity 7 - understanding why a disinfectant is used in certain rooms in a building
Activity 8 - same as Activity 7
Activity 9 - understanding that cleaning and refinishing a tile floor is not only for "looks"

Acquired Knowledge

Activity 1 - how to do a basic cleaning job
Activity 2 - how to clean chalkboard without streaks
Activity 3 - how to clean windows and mirrors
Activity 4 - how to clean outside windows using window brush and squeegee
Activity 5 - how to wash walls
Activity 6 - how to manipulate the large dust mop
Activity 7 - how to wet mop floors
Activity 8 - how to clean restroom - stools, sink, chrome fixtures, etc.
Activity 9 - what happens when a tile floor is cleaned and refinished
Activity 10 - (optional) how to operate large scrubbing machine

Vocabulary Student Will Encounter

abrasive - causing irritation; rough
solution - a liquid containing a dissolved substance
detergent - a cleansing agent; soap
disinfectant - a chemical that destroys forms of harmful bacteria
caution - forethought to minimize risk; warning
fixture - something permanently attached to a building, in this case, a plumbing fixture
composition - a mass formed by combining two or more elements

## RELATIONSHIP TO PRESENT CURRICULUM

This package is possibly related to subjects discussed in Home Economics, Family Living, etc. curriculums.

## RELATIONSHIP TO OTHER PROJECT DISCOVERY PACKAGES

1. Waiter/Waitress
2. Medical Patient Care

People, Data, Things Code: 002

## SUBSEQUENT ACTIVITIES

1. Visit custodial service business.

2. Visit institutions which have large housekeeping staffs, such as hospitals.

3. Look into aspects of running a small business dealing with this service - could investigate bookkeeping, filing, etc.

4. Investigate other cleaning different types of surfaces - carpeting, concrete, etc. Investigate difficult cleaning problems.

# CAREER EXPLORATION EXERCISE

1. Title: "WHAT I WANT TO BE"

2. Author: Brooks

3. Time Allotted: 30-60 minutes, plus

4. Purpose: To make students more aware of their feelings about themselves and about their futures.

5. Career Exploration Goals: IE, IG, IJ

6. Activities and Notes for Leaders:

   A. Give each student a large sheet of newsprint 11" x 14" or 36" x 24", and a marking pen.

   B. Students should label the top of the paper "What I Want To Be".

   C. Directly below the title have students sketch a picture of how they might view themselves on the job or at their career someday. Students may use stick people if they wish.

   D. Below the picture to the left side of the paper, have students list the life experiences that have contributed to their choice. (Example: enjoys sewing - seamstress)

   E. Below the picture to the right side of the paper, have students list what they feel are their abilities interests, and characteristics that would qualify them for this career.

   F. When they have completed this, have the students hang their pictures on the wall with masking tape.

   G. Have students share ideas by moving around the room to see all of the other posters.

   H. Break into small groups of 5 or 6 students and discuss each of that group's posters.

   I. This activity can be done before and after exploration of Project Discovery packages.

7. Motivators: Hands-on activities about self.

8. Materials: Newsprint, marking pens, masking tape.

Name _____

School _____

_____ Grade ____

# STUDENT EXPLORATION EXPERIENCE CHART

project discovery

COMMENTS ON BACK

Instructions for using chart may be found in Project Discovery Guidance Manual

| | | | |
|---|---|---|---|
| Choice ☐ Began ☐ (020) **Accounting & Bookkeeping** /6 Int. Perf. P D T Y N | Choice ☐ Began ☐ (020) **Filing** /8 Int. Perf. P D T Y N | Choice ☐ Began ☐ (112) **Medical Emergency Services** /5 Int. Perf. P D T Y N | Choice ☐ Began ☐ (020) **Shorthand** /6 Int. Perf. P D T Y N |
| Choice ☐ Began ☐ (022) **Advertising & Editorial Design** /11 Int. Perf. P D T Y N | Choice ☐ Began ☐ (212) **Grocery Clerking** /6 Int. Perf. P D T Y N | Choice ☐ Began ☐ (211) **Medical Patient Care** /7 Int. Perf. P D T Y N | Choice ☐ Began ☐ (222) **Skin & Nail Care** /7 Int. Perf. P D T Y N |
| Choice ☐ Began ☐ (002) **Auto Body Repair** /6 Int. Perf. P D T Y N | Choice ☐ Began ☐ (222) **Hair Styling** /3 Int. Perf. P D T Y N | Choice ☐ Began ☐ (020) **Medical Records** /4 Int. Perf. P D T Y N | Choice ☐ Began ☐ (022) **Small Engine Repair** /6 Int. Perf. P D T Y N |
| Choice ☐ Began ☐ (020) **Banking & Credit** /7 Int. Perf. P D T Y N | Choice ☐ Began ☐ (210) **I Believe** /9 Int. Perf. P D T Y N | Choice ☐ Began ☐ (111) **Preliminary Health Exploration** /8 Int. Perf. P D T Y N | Choice ☐ Began ☐ (022) **So Ya Wanna Be An Artist** /16 Int. Perf. P D T Y N |
| Choice ☐ Began ☐ (021) **Biological Services & Tech.** /8 Int. Perf. P D T Y N | Choice ☐ Began ☐ (222) **Law Enforcement** /5 Int. Perf. P D T Y N | Choice ☐ Began ☐ (012) **Plumbing** /7 Int. Perf. P D T Y N | Choice ☐ Began ☐ (022) **Trucking** /6 Int. Perf. P D T Y N |
| Choice ☐ Began ☐ (112) **Dental Care & Services** /4 Int. Perf. P D T Y N | Choice ☐ Began ☐ (012) **Mail Handling** /8 Int. Perf. P D T Y N | Choice ☐ Began ☐ (220) **Sales Representative** /6 Int. Perf. P D T Y N | Choice ☐ Began ☐ (201) **Waiter/Waitress** /3 Int. Perf. P D T Y N |
| Choice ☐ Began ☐ (002) **Exploring Greenhouse Work** /8 Int. Perf. P D T Y N | Choice ☐ Began ☐ (012) **Masonry** /6 Int. Perf. P D T Y N | Choice ☐ Began ☐ (211) **Senior Citizens** /6 Int. Perf. P D T Y N | Choice ☐ Began ☐ (122) **Wall Coverings** /13 Int. Perf. P D T Y N |

# PROJECT DISCOVERY EVALUATION

Name _____

Title of Kit _____

This Kit was my choice # 1 2 3 4 5 6 7 8 9 10 (circle one).

Days spent working in the Kit 1 2 3 4 5 6 7 8 (circle one)

I completed:

_____ all of the activities

_____ most of the activities

_____ half of the activities

_____ less than half of the activities

I found the activities, for the most part:

_____ very interesting

_____ interesting

_____ O.K.

_____ boring

I think I did:

_____ well

_____ O.K.

_____ poorly

The parts I liked best were:

The parts I did not like doing were:

Suggestions to the publisher to improve this Kit:

_____ I <u>would</u> consider this or something similar as a possible occupation.

_____ I <u>might</u> consider this or something similar as a possible occupation.

_____ I <u>would not</u> consider this or something similar as a possible occupation.

## Introduction

The bulk of this section contains a discussion of a particular community school program called CSP. This program is operational in Iowa for disadvantaged and handicapped students. It may, however, provide a model for other states who wish to institute such a community-based program.

The remainder of the section includes discussion of other types of community-based programs which might be incorporated into a comprehensive career exploration program.

## COMMUNITY SCHOOL PROGRAM (CSP)

The Community School Program (CSP) allows schools to contract with persons in business and industry in the local community to help students explore work and/or to instruct students in specific job preparation. The program allows educational personnel to use student interest as a main factor in establishing community-based work experience.

In Iowa, the Special Needs Section of the Department of Public Instruction has set aside funds to assist schools with this program. These funds are earmarked and prioritized for disadvantaged and handicapped students.

Details on applying for these funds are included at the end of this section. Interested schools should contact the following people in Special Needs:

Ray Morley, Consultant, Secondary/Special Projects
Bill Walter, Consultant, Postsecondary/Adult

## How Does CSP Work?

Business people are paid a wage to work with students. This wage is agreed upon between the school and the business people. An employer-employee relationship does not exist in CSP. Students are <u>not</u> paid, but receive school credit for their experience.

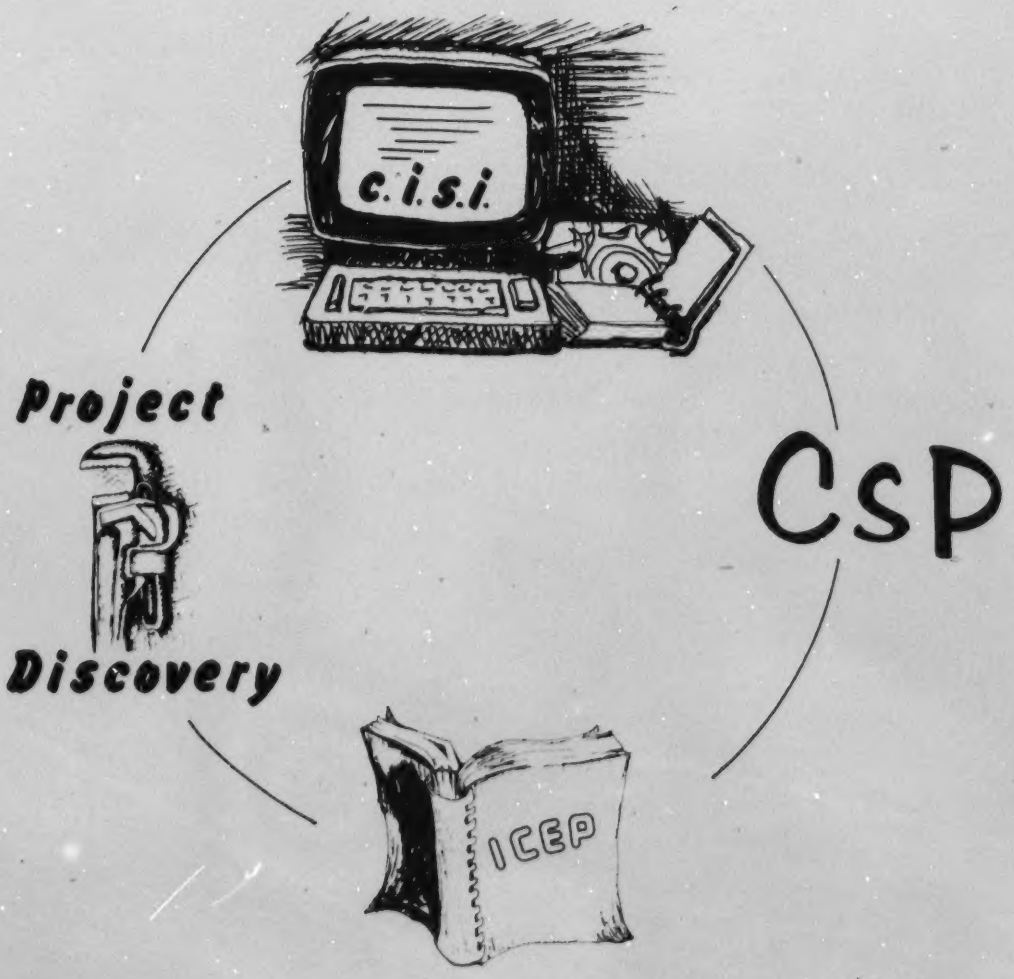
Written agreements are established between workers and the school so the responsibilities of each are understood.

Outlines of training experiences are established to make sure the training received is similar to what would be provided in a vocational school.

The length of the student's experience depends upon his/her ability and interest, willingness of the trades person, and the career area chosen by the student.

How Does CSP Fit Into a Comprehensive Career Exploration Program?

Ideally, a student's experience with CSP should come in grades 9 and 10. It should be preceded by other career exploration experiences such as Project Discovery, C.I.S.I., and ICEP activities. School personnel should use information processed during these other experiences when locating a CSP training site for a student. Thus, the CSP experience should be based on student interest, ability, and self knowledge, as opposed to just filling a work experience "slot".



Considerations for Implementation

- consider the work-study programs available in your district at the high school level if you are planning to implement CSP at the junior high level; sometimes persons responsible for high school work-study do not understand the goals of CSP and think their territory is being infringed upon

- consider what gaps in preparation or training may occur if your student participates in CSP at the 9th grade and is not able to be involved in a high school program until 11th or 12th grade

- some students expect to be paid when they work --- be sure they understand CSP is exploring and training, essentially a part of going to school --- not a job, as such

- consider transportation logistics for younger students with no driver's license/car and for handicapped students; in smaller communities this isn't as much of a problem; consider mass transit if student is covered by insurance while traveling and while on job.

- Using CSP as exploration as opposed to training: through experiences with C.I.S.I. and Project Discovery, the student may find need to explore more than one work area; CSP funds can be reapplied for after student has been engaged in one CSP experience.

## OTHER COMMUNITY-BASED PROGRAMS

There are many ways of including a community component in your career exploration program. The type of program may vary depending on the age of student being planned for and the student's career maturity.

### Shadowing

Shadowing experiences are valuable for career exploration, especially at the junior high/middle school level.

Shadowing might be set up so a student could spend a day or half day with a worker or could spend one class period for several days. Shadowing for a day provides the student with a better "feel" for the worker's environment and tasks to be performed.

As shadowing does not require the length of time needed for work experience or CSP, a student can experience several such exposures, along with simulated work activities and field trips.

Shadowing experiences should, if possible, follow some other career exploration experiences, such as C.I.S.I., simulated work (Project Discovery), and ICEP activities. Basing the student's shadowing experiences on some career and self perception information should provide for a more meaningful experience.

## Experience-Based Career Education

Experience-Based Career Education (EBCE) is a program developed by the Appalachia Educational laboratory and approved for local adoption by the Joint Dissemination Review Panel of the USOE. It is a comprehensive, self-contained alternative to traditional classroom and job preparation programs for high school students. However, this type program might be of value for students who anticipate leaving school before they complete high school and are faced with entry into the work world. If possible, this type of program should be preceded by other career exploration activity, so that students make the best of their work experiences.

Instead of attending classes, EBCE students choose places and jobs they want to know more about. Students spend 75% of their time in the community under the tutelage of adults who are performing their normal career activities. Students earn all their required and elective school credits for a given year or semester through the direct community experiences.

Neither students nor adults are paid for their involvement in EBCE.

The student and a learning coordinator jointly determine the learning goals for the specified time and specific objectives are set for 6-12 week periods.

Appalachia Educational Laboratory, Inc.
P.O. Box 1348
Charleston, West Virginia 25325

## Student Internship Programs

This type program parallels the programs already discussed. Students explore the world of work by taking a one-semester sabbatical from their regular studies. Students explore specific career areas such as management.

Neither student nor sponsor is paid in this program.

Internship programs are designed for use with high school students.

## Other Community Resources

As has been mentioned earlier in "Planning", plan to include the community as part of your comprehensive program, even if an extensive program such as CSP or EBCE is not possible. Use the community for speakers, help with Project Discovery, field trips, career days, summer career exploration experiences.

CSP GUIDELINES

State of Iowa
DEPARTMENT OF PUBLIC INSTRUCTION
Special Needs Section
Grimes State Office Building
Des Moines, Iowa 50319

## Community School Program (CSP)

The Special Needs Section has set aside funds to assist educational agencies (including private institutions) in financing vocational programs on a contractual basis with business and industry. These funds are earmarked and prioritized for disadvantaged and handicapped students residing in districts that offer two or less State Board approved vocational programs. The funds must be utilized within the fiscal year (July-June).

Educational agencies interested in utilizing these funds will be responsible for designating a staff person to coordinate the program. The staff person will be responsible for establishing contracts, finalizing curriculum outlines, evaluating the program, providing explanations to the local staff and local school board, and submitting the necessary program data to the Special Needs Section of the Department of Public Instruction.

In the design of this program there is no employer-employee relationship. Students in training sites will not receive wages during their training period. It is expected that supervisors of the program become knowledgeable of the labor laws governing youth employment, training and assessment and follow the guidelines established by the Department of Labor.

Educational agencies interested in applying for funds should contact the Special Needs Section, Department of Public Instruction, Grimes State Office Building, Des Moines, Iowa, 50319 (515) 281-3686. No deadline has been established for submitting proposals. Direct contact may be made with the following consultants for assistance in preparing applications.

Ray Morley, Consultant, Secondary/Special Projects
Bill Walter, Consultant, Postsecondary/Adult

COMMUNITY SCHOOL PROGRAM
GUIDELINES

A. Application Procedure for New and Continuing Programs

1. Complete the CE-4 form (page 1 and 2)

2. Submit contractual agreements signed by representatives from business and/or industry and the educational agency (see example agreement contract).

3. Submit a brief outline of each training program to be implemented and signed by the said trainer (see example outline). This outline can be part of the contractual agreement.

4. Submit a letter of need. The letter should include:

   (a) The need for federal assistance, i.e., why the program cannot be implemented using local dollars. If dollars are available in the local general fund, it must be explained why the funds cannot be used to support or partially support this program.
   (b) Verification that the training for which reimbursement is claimed is not presently available within the offerings of the school. If an offering is available, explain why the students cannot be enrolled.
   (c) Identification of the students by their disability and resulting handicap which prevents them from attaining vocational training.
   (d) Identification of the training contracted for the students and the credit which will be awarded.
   (e) Justification for reimbursement of costs beyond the training contracts. (Refer to reimbursement -- pg. 3)

   Submit three (3) copies of the above at least 30 days prior to the beginning date of the program to: The Special Needs Section, Department of Public Instruction, Grimes State Office Building, Des Moines, Iowa, 50319.

   Each application will be accepted and reviewed for approval by the Special Needs Section under the direction of the State Board of Public Instruction. Approval will be based upon the merit of the application in identifying population to be served, student needs, program characteristics and anticipated outcome.

   Programs may be administered by one educational agency or jointly administered by two or more.

B. Criteria and Priorities to be Considered

1. Offering is not presently provided by the educational agency for any student.

2. Appropriate identification of the disadvantaged and handicapped as defined by the Iowa State Plan for the Administration of Vocational Education Within Career Education (check population roster included).

Roster can be used as a tool to organize and individually prescribe instruction.

3. Funding to be used by the educational agency to contract with business and industry for the purpose of providing the necessary assistance for instruction of students.

4. Coordination as outlined below is to be the responsibility of the school.

   (a) establishing contracts for training
   (b) supervision of students and persons providing training
   (c) student counseling
   (d) evaluation
   (e) related instruction
   (f) transportation
   (g) insurance

5. Adherence to the Department of Labor guidelines (Pub. 1972, Employment Relationship under the Fair Labor Standards Act)

   (a) The training, even though it includes actual operation of the facilities of an employer, must be similar to that which would be given in a vocational school.
   (b) The training must be for the benefit of the trainees or students.
   (c) The trainees or students must not displace regular employees, but work under their close supervision.
   (d) The employers or tradesmen that provide the training must derive no immediate advantage from the activities of the trainees or students and on occasion their operations may actually be impeded.
   (e) The trainees or students are not necessarily entitled to a job at the conclusion of the training period.
   (f) The employers or tradesmen and the trainees or students understand that the trainees or students are not entitled to wages for the time spent in training.

6. Safety comes first--Insurance covering property and medical should be established so that persons in business, industry and students are protected in case of accidents. Insurance purchased for students through the school should be obtained if it covers students in this training situation. Also refer to Insurance Option/Parent Policy and refer to Workshop Summary/Insurance.

7. Supervisors/coordinators of program become knowledgeable of federal and state child labor regulations with assurance that no violations occur that penalize the student, school and cooperating business/trades persons.

8. Students receive school credit for vocational training. It is suggested that 60 hours of preparation equal one full credit. However, this is only a suggestion. Educational agencies can determine their own system of credit.

C. Approval

1. Contracts will not be approved beyond an eighteen (18) week period. All contracts will be approved on a basis of comparison between the student(s) involved and the type and level of training proposed plus factors described above under the Criteria and Priorities.

2. Contract may be extended after an evaluation has been completed. The evaluation must be based on components of training completed and not completed. This can be reflecting upon factors in the training outline. The example program outline has been established to suggest a way to account for areas of training received and not received. All training outlines should provide a means to account for completed training.

3. Contracts may be extended by writing a letter asking for extensions. The letter should include an identification of students involved and why an extension is necessary, length of extension and cost. Why an extension is necessary can be justified only by the evaluation completed on training outlines (see explanation under approval).

4. The number of contracts may be expanded anytime during the fiscal year by following the application procedure described above.

D. Reimbursement

The Special Needs Section suggests that local schools consider paying tradespersons from the local budget upon completion of training and use reimbursement to supplement the school budget.

1. Reimbursement will be paid from claims submitted on the CE-4 form after June 30 (end of fiscal year) or upon the close of projects.

2. Only claims supported by documented expenditures approved by the Special Needs Section will be eligible for reimbursement.

3. Business and industry may be paid for instructional salaries and expendable materials. Instructional salaries should be negotiated and not exceed what a trainer would receive under his present salary provisions. Expendable materials include tools and/or uniforms that students may need for training. *Since the priority use of Special Needs vocational funds is for reimbursement of instructional salaries, it is intended that insurance, transportation, facilities, coordinator secretary and administrator time be part of the local support.

4. A maximum of fifteen percent of total program costs will be allowed for the coordination of the program providing there is documentation that expenditures are not supplanted or co-mingled with other funds. Areas to consider for costs could be travel for the coordinator, inservice for coordinator to attend meetings, program development on the basis of extended contracts, additional clerical costs and the like. Justification for costs above the contract costs must be included in the letter of need.

5. A budget summary sheet detailing all costs of the CSP must be submitted with the CE-4 and budget summary sheet before reimbursement can be provided (refer to separate guidelines on evaluation).

6. A complete evaluation (Community School Program Evaluation) must be submitted with the CE-4 and budget summary sheet before reimbursement can be provided (refer to separate guidelines on evaluation).

   *Note that ongoing reimbursement procedure includes: (1) CE-4, (2) budget summary sheet and (3) evaluation.

7. If reimbursement at mid-year is requested and more training will occur (new contracts or extended), the program summary sheet may be withheld until the end of the fiscal year. An evaluation of each contractual agreement plus a CE-4 must be submitted along with a letter requesting mid-year reimbursement. The letter should outline the business establishment, students involved, training provided and the amount needed for reimbursement.

VOCATIONAL TRAINING SERVICES AGREEMENT

(Example)

This agreement is made and entered in to this 4th day of February, 1979, by and between Murphy's Engine Repair Clinic and Crankshaft Community High School, Crankshaft, Iowa.

It is the mutual desire of the parties of this contract to provide instruction in Auto Mechanics for (2) special needs students (John Jones-mentally retarded, Sarah Cradle -- learning disabled) enrolled in the Crankshaft Community High School. The purpose of this contract shall be to facilitate the effective development, administration and supervision of the necessary program and services.

The agreement shall commence on the 7th day of February, 1979 and shall terminate on the 30th day of June, 1979. Murphy's Engine Repair Clinic will receive payment at the rate of $2.00 per hour/one hour per day/five days per week for nine weeks.

1. Murphy's Engine Repair Clinic agrees as follows:

   (a) to provide an experienced mechanic (name) who will be responsible for instruction
   (b) to provide eighteen (18) weeks of auto engine repair instruction that is commensurate with the ability level of the students (name) enrolled
   (c) to provide the equipment, tools, materials and special clothing necessary for instructional experiences
   (d) to provide a written evaluation of each student's performance
   (e) recognize and abide by the six guidelines of the Department of Labor listed in the CSP guidelines

2. Crankshaft Community High School agrees as follows:

   (a) to provide a coordinator to supervise students and provide counseling and related instruction services
   (b) to provide and/or arrange for transportation to and from Murphy's Engine Repair Clinic
   (c) to provide the Department of Public Instruction a written evaluation of each student in cooperation with Murphy's Engine Repair Clinic (based on training outline and suggested evaluation formats)
   (d) to provide reimbursement to Murphy's Engine Repair Clinic in the amount of $800 for the training of two students (one mentally retarded, one learning disabled)
   (e) to recognize and abide by the six guidelines of the Department of Labor listed in the CSP guidelines
   (f) to provide a means for adequate insurance coverage by taking out a policy on each student under a group insurance plan or having parents provide individual insurance coverage.

It is recognized that this agreement can be terminated immediately based upon the request of the student, parent, trainer or coordinator.

Proprietor--Murphy's Engine Repair Clinic
(Name of proprietor should be typed under the signature)

Superintendent, Crankshaft Community School District
(Name of superintendent should be typed under the signature)

PROGRAM OUTLINE
(Example)

Murphy's Engine Repair Clinic
476 Front Wheel Avenue
Crankshaft, Iowa 50119

Jessie Murphy--Instructor

*This program has been put into a format that encourages accountability. Instructors can use this format to trace their progress in providing training. Coordinators can use the format for evaluating progress and justifying extended training or changing the Student's training field.

Auto Mechanics Program
Outline

| | Completion | Date of Completion | Degree of Independence: Without Assistance | Degree of Independence: With Assistance | Acceptability in competitive employment: Acceptable | Acceptability in competitive employment: Not Acceptable |
|---|---|---|---|---|---|---|
| Orientation | | | | | | |
| 1. Introduction to a trainer | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 2. Laws of Shop | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 3. Safety regulations | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 4. Shop regulations | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| Tools | | | | | | |
| 1. Tool identification and use | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |

| | Completed | Date of Completion | Degree of Independence: Without Assistance | Degree of Independence: With Assistance | Acceptability for competitive employment: Acceptable | Acceptability for competitive employment: Not Acceptable |
|---|---|---|---|---|---|---|
| 2. Tool care | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| Compression Set | | | | | | |
| 1. Spark plug removal and compression test | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| Grind Valves and Run Engine | | | | | | |
| 1. Coolant removal and coolant hoses | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 2. Removal of electrical connections | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 3. Removal of fuel lines and cost | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 4. Removal of intake and exhaust manifold | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 5. Cylinder head removal | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |

| | Completed | Date of Completion | Degree of Independence: Without Assistance | Degree of Independence: With Assistance | Acceptability in competitive employment: Acceptable | Acceptability in competitive employment: Not Acceptable |
|---|---|---|---|---|---|---|
| 6. Inspection of head gaskets and valves | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 7. Removal of valves and springs | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 8. Inspection of valve springs | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 9. Inspection of valve guides | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 10. Cleaning of valves | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 11. Replacing valves | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 12. Cleaning of valves | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 13. Replace valve set | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |

| | Completed | Date of Completion | Degree of Independence: Without Assistance | Degree of Independence: With Assistance | Acceptability in competitive employment: Acceptable | Acceptability in competitive employment: Not Acceptable |
|---|---|---|---|---|---|---|
| 14. Measure valve stem length | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 15. Install valves and valve seals | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 16. Install head and manifold, fuel lines, carburetor, hoses and coolant | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 17. Start engine | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 18. Adjust valves | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| Tune Engine | | | | | | |
| 1. Remove distributor (use of distributor test) | | | | | | |
| a. Install new points and condenser | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |

| | Completed | Date of Completion | Degree of Independence: Without Assistance | Degree of Independence: With Assistance | Acceptability in competitive employment: Acceptable | Acceptability in competitive employment: Not Acceptable |
|---|---|---|---|---|---|---|
| b. Set mechanical advance and point | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 2. Adjust and install new spark plugs | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 3. Start engine; set timing with timing light | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |
| 4. Adjust carburetor with tachometer | ___ | _____ | ___ | ___ | ___ | ___ |
| | ___ | _____ | ___ | ___ | ___ | ___ |

_____

Signature of Instructor or Trainer
(typed name of instructor should appear under signature)

Example of Insurance Option - Parent Policy

UNDERSTANDING OF INSURANCE OBLIGATION AND COVENANT NOT TO USE

1. We, the undersigned parents of _____, who is currently participating in a community-based vocational training program offered as part of the curriculum of the Crankshaft Community Schools, Crankshaft, Iowa, do hereby acknowledge that it is our obligation and responsibility to make certain that our minor child is adequately protected by medical and/or disability insurance for personal injuries that may occur while our child is performing for the training supervisor associated with the said program. We now have adequate insurance coverage under _____(insurance company)_____.
2. Based on the foregoing, we, the undersigned parents, do hereby promise that we will never, individually or as legal guardians for our minor child, _____(name)_____, institute any action at law or in equity, against the Crankshaft Community Schools, its administrators and teachers and the training supervisors on account of any injury or other loss that may be sustained by us or by our minor child as a consequence of his/her participating in the aforementioned program. We further promise that the preceding covenant shall bind us and our legal heirs, assigns and representatives.
3. Lastly, we, the undersigned parents, do hereby acknowledge that we have read this instrument and have understood all its terms. We also state that we have signed this instrument voluntarily and with full knowledge of the legal significance of doing so.
4. In witness to our agreement to the above provisions, we have signed our names on this _____day of _____, 19 ____.

_____
Parent

_____
Parent



_____
Witness (Notary Public)

E X A M P L E

Example Program Summary Sheet
Which Must Accompany Submission
of CE-4 Form for Reimbursement

(STAPLE TO CE-4)

School District _____ Coordinator _____

Program Costs

| Field of Training | Number of Students Completing Training | Total Length of Training Hours/Weeks | Instructor/Business | Cost Hour/Total |
|---|---|---|---|---|
| Plumbing | 1 | 112 hours/ 15 weeks | Purt Bean/ Maxwell Plumbing | $2.00 per hour/$224 |
| Stock Clerk | 1 | 72 hours/ 12 weeks | Jane Shane/ Boats Super Valu | $2.00 per hour/$144 |
| Auto Body Repair | 1 | 180 hours/ 20 weeks | Berry Front Blondie's Body Shop | $5.00 per hour/$900 |
| Totals | 3 | 364 hours | | --/$1,268 |

Coordinator--Specification of Travel and Coordination Time

| | | |
|---|---|---|
| 200 miles x $.15 | $ 30.00 | $ 30.00 |
| 47 hours x $7.80 per hour | $366.60 | $ 366.60 |

Based on school hours and/or occasional weekend visitations for evaluation

Secretarial--Specification of time expended on CSP

| | | |
|---|---|---|
| 30 hours x $3.00 | $ 90.00 | $ 90.00 |

Time spent completing contracts, evaluations and budgets

Administration

| | | |
|---|---|---|
| 20 hours x $11.80 | $236.00 | $ 236.00 |

Time spent in supervision of coordinator and counselor and submission of proposals and evaluation

Insurance and Student Travel

| | | |
|---|---|---|
| 1 student - parent policy | $ 31.00 | $ 31.00 |
| 3 students - $25 for school policy | $ 75.00 | $ 75.00 |
| Transportation - 800 miles x $.15 | $120.00 | $ 120.00 |

Instructor Time (Local) - If tradesperson normally makes more per hour than what he/she is asking for training students, include as local cost

Grand Total $ 2,666.60

(4)

- INVOLVING THE HANDICAPPED IN CAREER EDUCATION

# INVOLVING THE HANDICAPPED IN I.C.E.

## Background

The purpose of the I.C.E. project (1978-79) from the beginning was to demonstrate the most effective methods and techniques for involving handicapped (mentally handicapped and learning disabled) students in on-going career exploratory activity.

Prior to I.C.E., handicapped students had been involved in some comprehensive career education programs in Iowa. However, teachers had received little information on how to involve handicapped youth in career education activity. Almost no information had been provided on the involvement of the handicapped at the junior high school level for exploration experiences.

## THE NEED

### Student

Handicapped persons should be able to seek work that is compatible with their interests and aptitudes, just as are other persons. In the past, we have acted as though a handicapped person should be both pleased and grateful for any kind of work society provides.

Basically, the educational needs of adolescent handicapped students are the same as those of other adolescents. Handicapped students must be aware of their interests, aptitudes, abilities, and potentials, and must be able to make decisions about their future life.

The career education process can provide an excellent vehicle to meet the needs of handicapped students. It can assure that there is direct attention paid to the career development of all youth as they progress through the educational system. At a time when handicapped students are being placed back into the educational mainstream, it is important that their needs are considered within the career education context along with the rest of the school population.

### Staff

National findings have indicated that career education for the handicapped in public schools is far from adequate. There exists the need to have programs available so handicapped students can achieve vocational adjustment adequate for competitive employment. Teachers, both in special and regular education, are asking for reliable information to complete the task. In part, integration of the handicapped is not happening because classroom teachers and other school personnel are not being given adequate help in dealing with handicapped youth.

It is unlikely that we can expect to integrate most handicapped students satisfactorily unless regular school personnel (administrators, counselors, classroom teachers) have positive attitudes and appropriate education to meet their needs. "We have found that in many instances, professionals in career education programs have not been oriented toward what to expect from handicapped youth, but would be willing to help these youth if they had some sort of support about 'what to do, when to do it, and how to do it'". (Kroloff, Morley, Walter)

## THE HELP

### In-Service

When involving regular school personnel in a career exploration program that includes handicapped students, the main issue seems to be that the situation be approached with positive attitudes toward the task.

Career and vocational development is an individual matter --- as individually unique as personality, interests, and abilities. If approached from this standpoint --- that of individuality --- providing for the handicapped should be no problem.

You may wish to provide a sensitizing session for all staff members that will be involved in your career exploration program. Ask your special teachers to be involved in your in-service. The sensitizing session may involve activities that stress individual differences and individual learning patterns, as well as any specific help your special teachers may contribute.

Following are some activities that could be used to create concrete experiences for your staff related to serving students with learning difficulties.

STAFF SENSITIZING ACTIVITIES

## ATTITUDE WARM-UP ACTIVITY

Group Size: 15 - 30 participants

Time Needed: 20 - 30 minutes

### OBJECTIVES

Participants will:

- experience what it feels like to be assigned to a group without choice or input.
- experience what it feels like to be left out of a group because of individual qualities.
- have an opportunity to discuss the problem of these feelings as they relate to a teaching environment for the handicapped student.
- have an opportunity to develop suggested solutions to these problems in a group setting.

### MATERIALS

1. List of attributes with designated group for preferred treatment.
2. Reinforcers for preferred group (tokens or edible reinforcers such as candy).
3. Small signs to mark group areas. (3)

### PHYSICAL SETTING

1. A room with enough space for three groups of people to gather --- need not have sitting available.
2. Chalkboard or newsprint and markers for writing feelings and solutions for coping in classroom.

### PROCEDURE

1. Put up signs for group areas.
2. Introduce activity:

   "During this activity you will be asked to join different groups. As you do this remember how many groups you were included in and those you were not included in. Think about where you are, if you like where you are, etc.".

ATTITUDE WARM-UP ACTIVITY (con't)

PROCEDURE (con't)

3. Begin designating groups by attribute:

   - reinforce with tokens, small wrapped candies, etc. those people in the preferred (#1) group.
     Direct your attention to this group.
     Show enthusiasm for repeated access to the preferred group.
     Continually tell preferred group how great they are.

ATTRIBUTE LIST

1. Handedness - 2 groups

   a. left handed
   b. right handed

   - left hand is designated as preferred group
   - you may assign a writing exercise to be done with the left hand

2. Height - three groups --- this leaves out one height category

   a. 5'6" - 5'10"
   b. 5'11" - 6'2"
   c. 6'2" and over
      (under 5'6" height is left out)

3. Eyes - two groups

   a. no corrective lenses
   b. contacts

   (Those wearing glasses are left out)
   - you may assign a reading activity to be done without glasses.

4. Hair color - three groups

   a. black
   b. red
   c. blond

   Brown hair left out.

5. Eye Color - 2 groups

   a. blue
   b. brown
   c. all others --- preferred group

PROCEDURE (con't)

4. Discuss these first 5 sorts.

   Suggested Questions to Ask:

   1. Were you always in a group?
   2. Did you prefer being excluded?
   3. Did it matter if you were in the preferred group?
   4. Did you like all of the groups you were in?
   5. Did you like being assigned arbitrarily to groups with no personal choice?
   6. How did you feel doing activities designed for people with different abilities than you possess?

5. Continue "sorting" with the following categories.

   Remind participants that honesty will be very critical to this part of the activity.

   SORTING BY DESCRIPTORS

   1. Age
      a. 50 and up
      b. 40 - 49
      c. 30 - 39

      You may change these groupings to fit your group. Be sure to leave out one age range.

   2. Weight

      a. 125 and less
      b. 126 - 150
      c. 151 - 175

   3. Number of traffic violations

      a. 1 - 5 (preferred group)
      b. never
      c. 5 and more
      d. 1 - in last 12 months

PROCEDURE (con't)

6. Conduct discussion using guide questions below.

   Make a list of problems that arbitrary group assignments might bring about in the classroom.

   Make a list of solutions to the problems.

   Be sure to emphasize the following points:

   --- special students often find themselves grouped by attributes that they didn't choose
   --- special students may have developed strong negative feelings about themselves because of the lack of control
   --- these feelings may interfere with successful accomplishment of learning activities
   --- be aware when student is assigned that the student is included in that assignment if at all possible

DISCUSSION GUIDE

During the discussion, have the participants identify:

1. How many groups they are in.

2. If they liked all the groups they are asked to join.

3. How handicapped students might feel if they are always assigned to groups because of one single attribute.

4. A list of problems the arbitrary group assignments might have on the individual handicapped students' attitudes toward self and learning.

5. Possible solutions to these problems.

# TEACHING CHILDREN WITH COMMUNICATION HANDICAPS

## OVERVIEW

This activity calls for participants to work in pairs. One member of the pair receives an "A" booklet and the other member a "B" booklet. The activity is paced entirely by the instructions in the booklets.

A total of six teaching/learning simulations will be encountered by the pair. Each person will have an opportunity to play the "teacher" in three of the simulations and the "learner" in three. Each of the simulations demonstrates a teaching situation whereby the learner is able to receive communication through only a single sensory channel -- auditory, visual, kinesthetic.

Following each of the simulations, the "teacher" and "learner" discuss the activity and the instructional procedures that helped and/or hindered the communication.

## OBJECTIVES

Through the activity the participant will

--- experience what it feels like to have a communication disorder.

--- experience what it feels like to teach someone with a communication disorder.

--- have an opportunity to discuss instructional procedures that help and/or hinder communication.

At the conclusion of the activity the participant will

--- be able to list three instructional practices that can help in communicating with learners who have communication problems.

## TIME NEEDED

A total of approximately 45 minutes is needed for this activity.

| | |
|---|---|
| Introduction | 5 minutes |
| Activity | 30 minutes |
| Discussion | 10 minutes |

## MATERIALS NEEDED

1. TO BE DUPLICATED:

   All pages to be duplicated are marked "Duplicator Page #_____" in the upper right hand corner. Use the pages in this kit so marked as masters. The pages marked "Transparency Page #_____" should be used as masters to process overhead transparencies.

MATERIALS NEEDED (con't)

ONE FOR EACH PAIR:

-- "A" and "B" Booklet — Duplicator Pages 1 - 6

(NOTE: The duplicator pages are printed with the first page of the "A" and "B" booklet on Duplicator Page 1, second page of the "A" and "B" booklet on Duplicator Page 2, etc. After you have made copies of the duplicator pages, collate and staple, and then cut in half. This will yield completed "A" and "B" booklets.)

-- Group Reaction Sheet — Duplicator Page 7

ONE FOR EACH PERSON:

-- Content Evaulation Form — Duplicator Page 8
-- Workshop Evaluation Form — Duplicator Page 9

2. OTHER MATERIALS:

No other materials are needed.

PHYSICAL ARRANGEMENTS NEEDED

A room with movable chairs sufficient to organize participants in pairs. Tables are not a necessity for this activity but can assist the participants when they are filling out their Group Reaction Sheets.

PROCEDURE

1. Organize and seat participants in pairs.

2. Introduce activity:

"During this activity you and your partner will be simulating a series of teacher/learner interactions. In each simulation, one of you will be the teacher and one of you will be the learner. The activity is designed to examine teaching procedures that can be used with learners who have communication disorders. The first two activities deal with learners who can receive instruction only through the auditory channel. The next two simulate a learner who can receive only through the visual channel. And the last two deal with kinesthetic reception of information.

Each of you will be receiving a booklet that provides complete instructions for each part of the activity. Look over your booklet carefully before beginning. During each part of the activity, you and your partner will always be on the same page number. Do NOT share the information in your booklet with your partner unless the instructions so specify.

Each pair will also receive a Group Reaction Sheet. Your booklets will instruct you when to fill out sections of this sheet."

PROCEDURE (con't)

3. Hand out booklets and Group Reaction Sheet.

   (NOTE: One member in group gets an "A" booklet and the other member gets a "B" booklet.)

4. Instruct participants to begin. Tell them to finish each part of the activity before moving on to the next.

5. During the activity, move around the room and observe the simulations. Offer assistance to any pair(s) that seem to be having problems.

6. Group Discussion.

DISCUSSION GUIDE

During the discussion have participants share their experiences with the rest of the group.

--- Which parts of the activity were the easiest? (visual, auditory, kinesthetic) Why?

--- Which pairs had problems with the activity because they didn't follow directions? How is this like a real teaching situation?

--- Share responses to the Group Reaction Sheet. What procedures seemed to really help communication? Hinder communication?

--- How does this activity transfer to what you are doing in your own classrooms? What will you be doing differently with your students after participating in this activity?

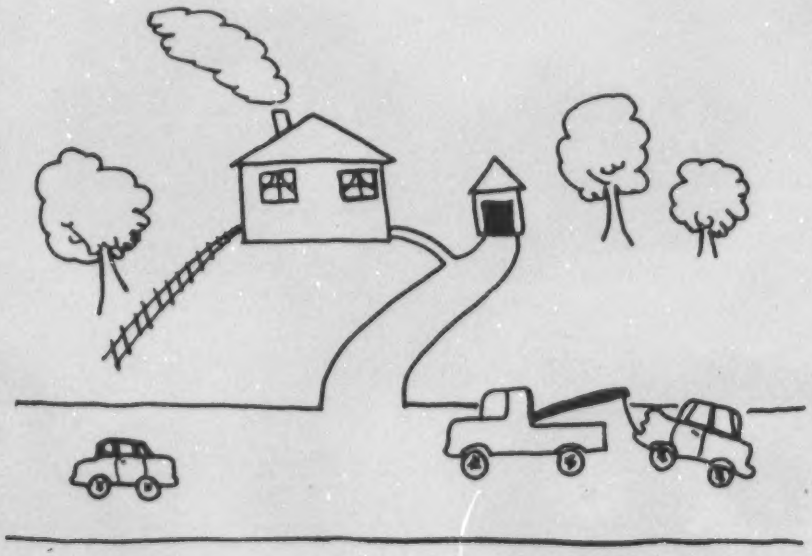
From: Ward, T., Levine, S.J. and Carlson, N. Workshop Training Kits. USOE/MSU Regional Instructional Materials Center for Handicapped Children and Youth, August, 1973.

TEACHING ACTIVITY #1

Your task is to communicate this picture to your partner *without* using any visual means. In other words, you must verbally communicate this information.

Begin by having your partner turn his back to you. Then, begin your instruction.

You have 2 minutes. After the time is up, have your partner reproduce the picture on his page. Your partner should not begin his drawing until you have finished your verbal description.



When finished, complete the first part of the Group Reaction Sheet with your partner.





FEEDBACK SHEET -- ACTIVITY #1

In the space below, draw the picture that your partner has verbally communicated to you. Wait until your partner has finished describing the picture before you begin your drawing.

When finished, complete the first part of the Group Reaction Sheet with your partner.

A2

FEEDBACK SHEET -- ACTIVITY #1

In the space below, draw the picture that your partner has verbally communicated to you. Wait until your partner has finished describing the picture before you begin your drawing.





How did this second attempt work? Discuss it with your partner.



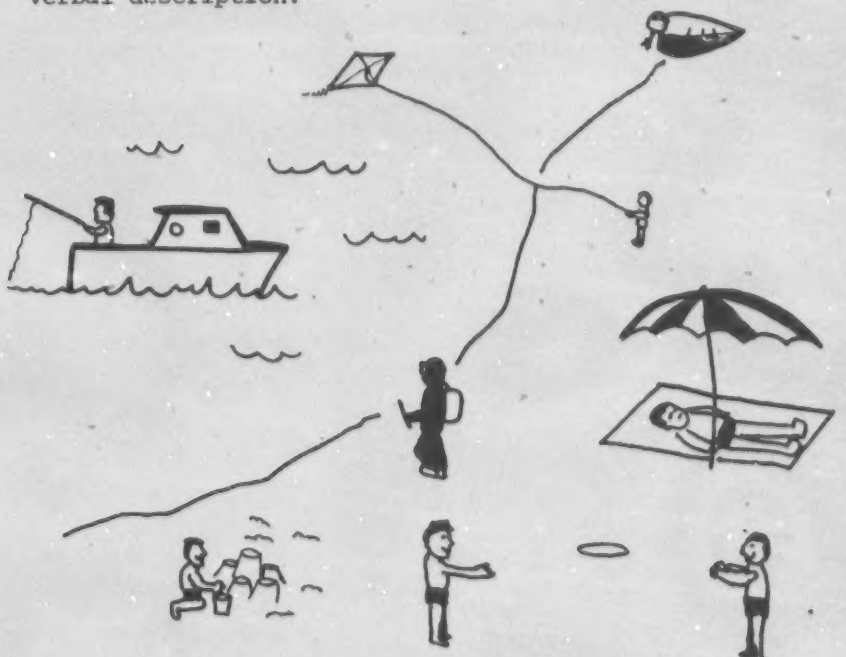
B2

TEACHING ACTIVITY #1

Your task is to communicate this picture to your partner *without* using any visual means. In other words, you must verbally communicate this information.

Begin by having your partner turn his back to you. Then, begin your instruction.

You have 2 minutes. After the time is up, have your partner reproduce the picture on his page. Your partner should not begin his drawing until you have finished your verbal description.





How did this second attempt work? Discuss it with your partner.

A3

Your partner will be visually communicating a concept to you. Try and figure out the concept. When your partner is finished, tell him/her the concept that has been communicated.



153

When finished, complete the second part of the Group Reaction Sheet with your partner.



B3

TEACHING ACTIVITY #2

Your task is to communicate the concept "OVER" to your partner *without* using any verbal language. In other words, you must visually communicate this concept.

You have 2 minutes. After the time is up, ask your partner to tell you what has been communicated. You can *not* talk while you are communicating.

154

When finished, complete the second part of the Group Reaction Sheet with your partner.

A4

TEACHING ACTIVITY #2

Your task is to communicate the concept "BESIDE" or "NEXT TO" to your partner *without* using any verbal language. In other words, you must visually communicate this concept.

You have 2 minutes. After the time is up, ask your partner to tell you what has been communicated. You can *not* talk while you are communicating.





How did this second attempt work? Discuss it with your partner.



B4

Your partner will be visually communicating a concept to you. Try and figure out the concept. When your partner is finished, tell him/her the concept that has been communicated.



How did this second attempt work? Discuss it with your partner.

A5

TEACHING ACTIVITY #3

Your task is to communicate the concept "DOWN" to your partner *without* using any verbal or visual communication. In other words, you must communicate entirely through physical means.

Begin by having your partner turn his back to you. Then, begin your instruction.

You have 2 minutes. After the time is up, ask your partner to tell you what has been communicated.





When finished, complete the third part of the Group Reaction Sheet with your partner.



Your partner will be communicating a concept to you by physical means. (No verbal or visual communication.) Try and figure out the concept.



When finished, complete the third part of the Group Reaction Sheet with your partner.

A6

Your partner will be communicating a concept to you by physical means. (No verbal or visual communication.) Try and figure out the concept.



How did this second attempt work? Discuss it with your partner.



B6

TEACHING ACTIVITY #3

Your task is to communicate the concept "JUMP" to your partner *without* using any verbal or visual communication. In other words, you must communicate entirely through physical means.

Begin by having your partner turn his back to you. Then, begin your instruction.

You have 2 minutes. After the time is up, ask your partner to tell you what has been communicated.



How did this second attempt work? Discuss it with your partner.

What instructional procedures helped the communication?

What instructional procedures hindered the communication?

What instructional procedures helped the communication?

What instructional procedures hindered the communication?

What instructional procedures helped the communication?

What instructional procedures hindered the communication?

# POLAR ALGEBRA

## OVERVIEW

POLAR ALGEBRA is a workshop activity that is designed to:

--demonstrate what it feels like to have a learning problem.

--demonstrate alternative instructional approaches that can be used with someone that has a learning problem.

Participants are shown a mathematical problem and asked to solve it using the "rules of Polar Algebra." Almost all of the participants will have difficulty solving the problem. Each participant then is asked to select one of four instructional approaches to assist in remediating the problem. There will still be some participants who will have difficulty with this new problem. Once again, remediation is provided. Finally, a last problem is provided and almost everyone will get it correct. The activity concludes with a discussion period.

## OBJECTIVES

Through the activity the participant will

---experience what it feels like to have a learning problem.

---have an opportunity to select a preferred remedial approach.

At the conclusion of the activity the participant will

---be able to list four different remedial approaches that can be used with children who have learning problems.

---be able to relate the feelings of a learner who is experiencing learning problems.

## TIME NEEDED

The entire activity takes approximately one hour.

| | |
|---|---|
| Introduction | 5 minutes |
| Problem #1 | 5 minutes |
| Remediation | 10 minutes |
| Problem #2 | 5 minutes |
| Remediation | 10 minutes |
| Problem #3 | 2 minutes |
| Discussion | 20 minutes |

## MATERIALS NEEDED

1. TO BE DUPLICATED:

   All pages to be duplicated are marked "Duplicator Page #____" in the upper right hand corner. Use the pages in this kit so marked as masters. The pages marked "Transparency Page #____" should be used as masters to process overhead transparencies.

| | |
|---|---|
| --Step-Wise Approach | Duplicator Pages 1-4 |
| --Independent Investigation | Duplicator Page 5 |
| --Rules of Polar Algebra | Duplicator Page 6 |
| --Learning Through Observation | Duplicator Page 7 |

   NOTE: You will need a quantity of each of these handouts (Duplicator Pages 1-7). Since, however, participants will select which one they want, it will be impossible to know in advance how many to prepare. Make sure you have enough!

2. OTHER MATERIALS:

| | |
|---|---|
| --Problem #1 | Transparency Page 1 |
| --Optional Instructional Approaches | Transparency Page 2 |
| --Problem #2 | Transparency Page 3 |
| --Problem #3 | Transparency Page 4 |

--Envelopes for Duplicator Pages 1-7 (Label each envelope according to what instructional approach it contains--Step-Wise Approach, etc.)

--Overhead projector

## PHYSICAL ARRANGEMENTS NEEDED

Movable chairs set up in an auditorium arrangement is okay, but tables and chairs are preferable. If tables are used, four participants per table is advisable. It is important to have flexible seating for this activity to allow participants to change seats if needed.

PROCEDURE

1. Briefly describe the activity:

   "During this activity you will have an opportunity to experience what it feels like to have a learning problem. You will also have an opportunity to work through your problem. I am going to show you a transparency that will demonstrate a problem that has been solved according to the rules of Polar Algebra. I will then ask you to solve a Polar Algebra problem."

2. Project Transparency #1 (cover the bottom part with a piece of paper).

   "Solve this problem according to the rules of Polar Algebra. You may use a piece of paper to help in your computations."

   (Allow 3 or 4 minutes)

   Call for participants to tell their answers.

3. Uncover the answer.

   "How many got the problem right?"

4. Project Transparency #2.

   "You will now have an opportunity to select the manner in which you will receive instruction in Polar Algebra. Examine these four options and select the option you would like to use for receiving instruction."

   Read through the four options with the participants.

5. Hand out to each participant an envelope with the type of instruction that participant would like to receive.
   (Duplicator Pages 1-7)

6. Allow about 10 minutes for individual instruction.

7. Briefly discuss the four different options and the participants' reactions to them.

8. Introduce next problem:

   "Now you have had a chance to better understand the rules of Polar Algebra. Let's see if you are able to do the next problem."

9. Project Transparency #3 (cover the bottom part with a piece of paper).

   "Solve this problem according to the rules of Polar Algebra."

   NOTE: The participants do NOT realize that a vertical line means "subtraction." The problem is easy to solve if turned on its side and treated as a normal subtraction problem.

   Allow 3 or 4 minutes.

   Call for participants to tell their answers.

10. Uncover the answer.

    "How many got the problem right?"

    At this point, assign those that got the problem correct as "teacher assistants" to help those that didn't get it correct. Have the assistants first ask their "students" to specify how they would like to receive instruction. Then, the assistants should provide instruction in that manner.

    Allow about 10 minutes for instruction.

11. Briefly discuss the instructional procedures that the assistants used.

12. Introduce the last problem (project Transparency #4 with the bottom part covered).

    By now everyone should be able to solve the problem.

13. Conduct a group discussion of the activity.

DISCUSSION GUIDE

There are two different topics that you should probe during the discussion. The following questions should assist in your discussion of the activity.

Topic 1 - The feelings associated with having a learning problem.

"What kinds of feelings did this activity promote?"
(i.e., frustrated, annoyed, challenged, belittled, etc.)

"Why did the activity promote these feelings?"
(Didn't know the rules at the beginning, went too fast, saw others being successful, etc.)

"How are these feelings similar to the feelings of a child with a learning problem?"

"What can be done to assist in alleviating the negative feelings?"

Topic 2 - Optional procedures for instructing children with learning problems.

THIS PROBLEM IS CORRECT ACCORDING TO THE RULES OF POLAR ALGEBRA

| 8 | 7 | 8 | 7 |
|---|---|---|---|
| E | 2 | G | 1 |
| E | F | C | G |

SOLVE THIS PROBLEM

| ? |
|---|
| G |
| D |

WRITE YOUR ANSWER ON A SHEET OF PAPER

---

THE ANSWER IS 9

YOU HAVE FOUR OPTIONS FOR RECEIVING INSTRUCTION IN HOW TO SOLVE THIS POLAR ALGEBRA PROBLEM.

OPTION #1 - STEP-WISE APPROACH
Programmed Instructional Sequence

OPTION #2 - INDEPENDENT INVESTIGATION
Using Prior Learning in an Unstructured Setting

OPTION #3 - THE RULES OF POLAR ALGEBRA

OPTION #4 - LEARNING THROUGH OBSERVATION
Watching How Others Learn

| | | | |
|---|---|---|---|
| THIS PROBLEM IS CORRECT ACCORDING TO THE RULES OF POLAR ALGEBRA | 6 | 1 | 5 |
| | 2 | 6 | 6 |
| | 5 | 2 | 2 |
| | 4 | 4 | 0 |
| SOLVE THIS PROBLEM | 6 | 3 | ? |

WRITE YOUR ANSWER ON A SHEET OF PAPER

---

THE ANSWER IS 3

THIS PROBLEM IS CORRECT ACCORDING TO THE RULES OF POLAR ALGEBRA.

| | | |
|---|---|---|
| G | 5 | 1 |
| C | G | 6 |
| E | 2 | 1 |
| D | D | A |

SOLVE THIS PROBLEM

| | | |
|---|---|---|
| F | D | ? |

WRITE YOUR ANSWER ON A SHEET OF PAPER

---

THE ANSWER IS 2 OR C

You have elected to use a *Step-Wise Approach* (Sequenced Approach) to learning Polar Algebra. In this step-wise approach you will be presented a programmed instructional sequence to assist you in learning the basics of Polar Algebra. Go through each step in order. Do not omit steps. Make sure you have completed each step correctly before going to the next step. The answer for each problem in the instructional program is given at the top of the page directly following the problem.

Good Luck!

P.S. Please leave your envelope face up on the table.







PROBLEM #1

D + D = 6

E + E = 8

F + F = 10

G + G = ?



ANSWER TO PROBLEM #1

G + G = 12

PROBLEM #2

D + 3 = 6

E + 4 = 8

F + 5 = 10

G + 6 = ?

ANSWER TO PROBLEM #2

G + 6 = 12

ANSWER TO PROBLEM #3

B + E = 5

ANSWER TO PROBLEM #4

A + D = 3

IV-26

PROBLEM #3

B + B = 2
B + C = 3
B + D = 4
B + E = ?

PROBLEM #4

A + A = 0
A + B = 1
A + C = 2
A + D = ?

PROBLEM #5

B + C = 3 C + C = 4

- OR -

$\frac{3}{B}$
C

- OR -

$\frac{?}{C}$
C

ANSWER TO PROBLEM #5

4

C
C

ANSWER TO PROBLEM #6

5

C
D

ANSWER TO PROBLEM #7

6

D
D

IV-27

PROBLEM #6

?

C
D

PROBLEM #7

?

D
D

PROBLEM #8

? ?

D C
D D

ANSWER TO PROBLEM #8

$$\begin{array}{cc} 6 & 5 \\ \hline D & C \\ D & D \end{array}$$

ANSWER TO PROBLEM #9

C = 2

2 = C

IV-28

PROBLEM #9

A = 0

0 = A

B = 1

1 = B

C = ?

2 = ?

PROBLEM #10

NOW TRY THE ORIGINAL PROBLEM

RULES OF POLAR ALGEBRA

You have elected to use the *Rules of Polar Algebra* to help you learn Polar Algebra. The rules for Polar Algebra are:

Rule #1 Each letter of the alphabet has a digital value.
A = O, B = 1, C = 2, D = 3, etc.

Rule #2 In Polar Algebra the adding is done upward.

Rule #3 The sum of adding is shown above the horizontal line.

Rule #4 Numbers and letters may be mixed.

Rule #5 Above the letter "G" only numerals are used.

P.S. Please leave your envelope face up on the table.

INDEPENDENT INVESTIGATION

You have elected to use an *Independent Investigation* approach to learning Polar Algebra. Use your time as you feel will be most beneficial. Work independent of the other learners. You may want to find a quiet corner.

Good Luck!

P.S. Please leave your envelope face up on the table.

LEARNING THROUGH OBSERVATION

You have elected to learn Polar Algebra by *Learning Through Observation*. You may move freely about the room and observe how others are learning. You may now ask questions of the other learners, but try to *limit your interaction* since they are also trying to learn.

Good luck!

P.S. Please leave your envelope face up on the table.

## HOT AND COLD TAG

I. Purpose: To provide participants with an opportunity to begin to verbalize their attitudes toward serving handicapped learners in general education settings.

II. Group Size:

A. Initially, this is a total group activity.

B. Later, the participants pair off and eventually form groups of four to six depending on the total number involved. A group of four is preferred since it gives each member more opportunity to contribute and feel part of the group. If the total number of participants is more than thirty, groups of six might be more appropriate.

III. Time Required: Thirty minutes.

IV. Physical Setting: Clear the center of the room so the participants can walk around.

V. Materials:

| Facilitator | Participant |
|---|---|
| None | 5" x 8" card<br>felt marker<br>pin or paper clip |

VI. Procedures:

A. Before conducting the activity:

1. Provide each participant with a 5" x 8" card and a felt marker.

B. Explaining the activity:

1. Ask the participants to draw a vertical line creating two four-inch wide columns and label the left column, "HOT" and the right column "COLD."

2. Instruct the participants to number 1 through 4 along the left margins of the two columns.

3. Inform the participants that "HOT" means likes or favorites, while "COLD" means dislikes.

4. Announce four categories such as handicapped students, gifted students, serving handicapped students in general education settings, parents of handicapped students (you may want to select others).

5. Ask the participants to list their "HOT" and "COLD" for each and to print those words large enough so they can be seen from a distance of several feet.

C. Implementing the activity:

1. Have the participants attach the tags to themselves with a pin or paper clip.

2. Give the following instructions:

   a. The participants will mingle without talking.

   b. They are to be certain to observe each person's tag.

   c. Based upon their reactions to the likes and dislikes, they will nonverbally select a partner -- someone they would like to know more about.

   d. Each pair will sit down and interview one another in preparation for introducing their partner to others in a small group.

3. If there is an odd number of participants, arrange one group of three.

4. After every participant has interviewed his or her partner, decide on the size of the groups -- either four to six.

5. Then give the following instructions:

   a. Each pair is to conduct a search for another pair (or two pairs if the group will include six persons) with whom they might enjoy interacting.

   b. Tell the groups to space themselves throughout the room so that they are not crowded.

   c. Instruct each participant to introduce his or her partner to the others.

6. The facilitator can introduce one other task to further the group's knowledge of their attitudes toward the handicapped. Two activities that could be used are both from Developing Effective Classroom Groups, by Gene Stanford (Hart Publishing, 1977).

   a. Give the participants a list of sentence beginnings which they are to complete in writing and share with the group if they wish to do so. Tell them to complete the sentences in regards to serving handicapped students in general education classes. Examples of items are:

      (1) Sometimes I wish...
      (2) Whenever I enter a new group...
      (3) It makes me proud when I...
      (4) A good thing that happened recently was...

b. Give each person a sheet of paper on which the words, "I am" are written five times; ask them to complete the phrase with information about how they feel about serving handicapped students in general education classes. Tell them they may share their responses with the group if they wish to do so.

From: Ford, Karen and Stjernberg, Lloyd. Meeting the Least Restrictive Environment Challenge: Preliminary Considerations for Educators, Midwest Regional Resource Center, 1979.

# ATTITUDE COLLAGE

I. Purpose: To provide participants with an opportunity to identify and share their understanding of and attitudes toward serving handicapped individuals in the regular classroom setting.

II. Group Size: Small groups - three participants per group.

III. Time Required: Fifty minutes

IV. Physical Setting: Small groups working in areas around the room.

V. Materials:

| Facilitator | Participant |
|---|---|
| None | Poster board (22" x 28" or 28" x 44") (one per group)<br>"Directions for Making the Collage" Handout #____ (one per group)<br>Magazines<br>Crayons<br>Markers<br>Yarn<br>Scraps of material<br>Scissors<br>Glue<br>(Anything else that provides a medium through which to develop the collage) |

VI. Procedures:

A. Explaining the activity:

1. Tell the participants that this activity will be to make a collage. Explain that the collage is to be based upon the participant's understanding of, and attitudes toward, serving handicapped individuals in the least restrictive environment.

2. Hand out the DIRECTIONS FOR MAKING THE COLLAGE sheet.

3. Tell the participants to read through the directions.

4. Ask if there are any questions.

5. Explain to the participant that there will be only forty minutes in which to complete the collages.

B. Implementing the activity:

1. Show the participants where materials can be found.

2. As the participants work on the collages, move about the room to answer questions and provide any needed assistance.

C. Establishing closure:

1. When the collages are completed, post them about the room.

2. Encourage the participants to take time to view the completed collages.

3. Ask for one or two groups to volunteer to share a description of their collages and what discoveries they made while developing them.



From: Ford, Karen & Stjernberg, Lloyd. Meeting the Least Restrictive Environment Challenge: Preliminary Considerations for Educators, Midwest Regional Resource Center, 1979.

## MORE ABOUT EXPLORATION

### TWO MODES OF EXPLORATION

There are two modes of exploration.

Exploration that expands awareness, that identifies interests and abilities, that creates a pool of alternatives and options, is developmentally, the first mode of exploration --- divergent.

The divergent mode of exploration is appropriate for most middle school students. Few students have had enough exposure and experience or have generated enough realistic alternatives to be ready for choice, or convergence.

After a student has identified a range of interests and abilities and after a student has created a pool of alternatives and options, then is the student ready to compare, to contrast and to choose --- convergent exploration.

Programs of divergence can create readiness for convergence. Such programs must be careful not to require or pressure students into premature choices. If a student at this level should leave the middle school with an awareness of his/her interests, abilities, and with knowledge of the decision process, he/she will be in good condition to begin academic counseling at the high school level. Convergent exploration, per se, becomes increasingly important for middle school students as the probability of early school drop-out and early world of work confrontation increases.

MORE ABOUT EXPLORATION

## THREE PRIMARY APPROACHES TO EXPLORATION

### A. Occupational Information

Occupational information is the dominant form of exploration today. A major reason is its fit with attitudes and processes of traditional instruction. Another is its optimization of variety and breadth. Occupational information comes in print, in mediated forms (tapes, films), and with personal speakers and lectures. A great variety of work and occupations can be explored via information. It is a time-efficient approach. A selected occupation may be explored in minutes.

As an approach to exploration, occupational information has a serious flaw. It has no depth or reality. It provides no experiencing, and no opportunity to test self-work hypotheses.

### B. Real World

The oldest form of exploration is "real-world" exploration, which has been with us over the ages. This approach, of course, optimizes depth and reality. But it is time-inefficient, taking days to weeks to explore a specific work. Variety and breadth are difficult and can be expensive.

### C. Simulated Work

A third approach is simulated work. The content of many occupations may be simulated. Real tools, equipment, and materials may be utilized in realistic activity in the artificial setting of a classroom under the supervision of a teacher. Simulated work lies between the other approaches---more realistic than occupational information and more varied than real world placements.

### D. I.C.E.

I.C.E. utilizes all three exploration approaches.

Good comprehensive exploration programs will.

THE SYSTEM: GUIDANCE & COUNSELING

PURPOSE

Exploration contains different modes and uses various approaches.
Exploration is developmental and serves a range of individual readiness and maturity.

Therefore, it can be confusing and overwhelming unless organized.

A system can be planned to provide organization.

EXPLORATION IS A SYSTEM

A system is an organization of subsystems.

In the case of exploration, subsystems can be identified in terms of:

(1) mode----------divergent, convergent
(2) general approaches----------information, simulated work, real world
(3) I.C.E. components----------C.I.S.I., ICEP, CSP, PD

A system and its subsystems are defined in terms of input and output. This indicates flow and movement.

To anticipate a student's flow from one subsystem to another in the system is especially compatible with the concept of development.
The subsystems must be arranged in a way that facilitates development.

If we think of exploration as the collecting and processing of all information necessary for ultimate vocational choice, then exploration must include environments, conditions, opportunities, and reward systems of work.

Environments, like content, can be experienced --- and should be. Conditions, opportunities, and reward systems are a part of information for developing adolescents.

TO SUMMARIZE, exploration is a system --- a system that:

1. is a combination of methods and approaches
2. facilitates developmental progress
3. includes divergence and convergence
4. includes work content and work environments
5. investigates work content interest
6. investigates work content abilities

EXPLORATION IS A SYSTEM.

## EXPLORATION IS AN INFORMATION SYSTEM

Exploration is also a system that:

1. generates information
2. processes information
3. facilitates student information processing

### Generating Information

There are hundreds of activities and experiences in a comprehensive career exploration program that generate new information, new knowledge, new awareness, new attitudes for the student.

general occupational information
interest inventories
length & importance of education & training
working conditions
pay & benefits

entrance requirements
steps to promotion
lifestyle
availability of training & jobs
opportunities for advancement

values
alternatives
mental-physical requirements
pressures
risks

job finding skills
community resources
hobbies & leisure time
academic basics
limitations-handicaps

expectations
strengths & weaknesses
job settings
job hazards

interpersonal relationships on job
parental acceptance of career choice
decision-making skills

The outcomes of exploration are informational.
It is helpful to realize, then, that the methods and techniques of exploration have no purpose other than to generate information and to process information in order to acquire the desired outcome.

Processing Information

It is too easy to conduct activities and assume students are getting something out of them without processing.

It is not enough for the student to know that he/she wants the social rewards of a professional, likes outside work, is good at math, has questionable finger dexterity, enjoyed the truck driving and accounting packages, etc., etc., etc.

The student must analyze, sort, and interpret what seems to be mountains of unrelated information.

The student needs help with processing the information generated by exploration activity.

C.I.S.I., structured counseling activities from Project Discovery and ICEP, counseling programs such as values clarification, and the counseling of concerned staff are means of information processing.

Traditional vocational counseling programs have sought to systematically extract from a student his/her perceptions, attitudes, and information related to vocations.

The means of extracting this information is typically a survey, inventory or some sort of pencil-paper measure.

The subsequent processing of this information has little option than to "accept at face value" the student's responses. The whole affair becomes subject to the GIGO principle --- garbage in, garbage out.

Valid conclusions do not come from such invalid information.

The traditional approach also removed the student from the processing. The measurement was scored, analyzed, and interpreted. The student was informed of the results.

The I.C.E. program seeks to improve on this traditional approach. I.C.E. provides experience and activity as a basis for student information gathering and processing.

I.C.E. proposes to help the student process the information. It is insufficient that the staff make decisions about the student. The student must come to conclusions and decisions if they are to be valid.

I.C.E. EXPLORATION IS AN INFORMATION SYSTEM.

EXPLORATION ACTIVITIES GENERATE INFORMATION.

COUNSELING HELPS THE STUDENT PROCESS THAT INFORMATION.

OUTCOMES AND THE NATURE OF PROCESSING

We have said that inventories have been used as one shot information processing in traditional vocational counseling.

Yet I.C.E. contains C.I.S.I. and encourages the use of other inventories, surveys, and measurements.

I.C.E. proposes, however, that such inventories be used repeatedly for purposes of analyzing the student's career development status.

For example, C.I.S.I. might be used as a beginning step simply to establish a starting point for the student.

After weeks of Project Discovery, ICEP, and/or CSP activity, the C.I.S.I. "Quest" may be revisited to process the intervening experiences and to make the student aware of progress. C.I.S.I. might then be a summarizing activity at year's end.

Thus, we become aware of the notion that exploration outcomes are determined by the nature of the processing.

The mechanics of C.I.S.I. are the same whether used for final decision making or temporary interpreting.

The results of the identical activity vary with the nature of the processing.

The involvement with C.I.S.I. may produce or generate identical information, but the difference is in how this information is processed or interpreted.

To further illustrate, we might collect physical data for a group of people. The data may be interpreted to determine fitness for an athletic team. Or the data may be processed to determine eligibility for insurance.

THE DATA IS NOT DIFFERENT.
THE CONCLUSIONS DIFFER BECAUSE THE PROCESSING DIFFERS.

OUTCOME DEPENDS ON PROCESSING.
PROCESSING IS SELECTED AS A FUNCTION OF INDIVIDUAL NEEDS AND STATUS.

I.C.E. exploration activities and experiences are numerous and varied; they are fixed and finite.

But the same activity may be performed by several students and yield a variety of outcomes.

Consider the Project Discovery "Plumbing" package.
With appropriate processing the student can come to several outcomes:

1. I like working with hand tools like pipe cutters, wrenches, etc.
   I am really bothered by the dirt and grease, especially when it makes my hands feel "icky".
   I don't do the precision work, like measurements for pipe length, too well.

   (Note: the processing completely avoided the occupation of plumber.)

2. I definitely think plumbing is one option for me.

   (Note: processing did not lead to vocational choice; neither did it examine the likes and dislikes or the abilities or inabilities of the various characteristics of plumbing.)

   (Note: processing led to a comparison of alternatives.)

All these outcomes are appropriate, if they occur at the proper place in a student's career/vocational development.

The outcomes outlined above apply, respectively, to (1) early divergence, (2) late divergence, and (3) early convergence.

OUTCOMES DEPEND ON PROCESSING.
AND PROCESSING IS SELECTED AS A FUNCTION OF INDIVIDUAL NEEDS & STATUS.

## I.C.E. COUNSELING IS INFORMATION PROCESSING

I.C.E. proposes counseling of two basic types.

a. Some is information delivery.

b. Most is information processing.

### Counseling Components

Some of the following counseling components are supported by C.I.S.I., Project Discovery - Guidance & Counseling activities, and various ICEP activities. Other components rely on staff initiative and traditional materials.

1. Orientation to Exploration and I.C.E.

   Includes materials, activity, and information delivery to explain the purposes, expectations, and processes of exploration as well as what, when, who and how of the local I.C.E. program.

2. Pre-Activity Readiness

   Includes the creation of mind-set, attitudes, and atmosphere of expectation prior to exploration activity.

   One's interaction with activity - the questions asked, whether or not questions are asked, is influenced by the mind-set brought to the activity by the student.

   This is the first stage in establishing for the student which of the possible processing outcomes will be pursued.

   The staff person responsible for each pre-activity, naturally is involved in this counseling component.

3. Post-Activity Review

   Includes counseling designed to cause the student to reflect on the completed activity, to pursue the pre-activity mind-set, to identify the information intended to be derived from the activity.

   The staff person involved with this component depends on the post activity being considered, i.e. Project Discovery, CSP.

4. Review of All Exploration Experiences for Evolving Patterns

   After sufficient number of activities from any program component have been performed and processed independently, the information from the collective activities may be examined for evolving patterns, consistencies and commonalities.

5. Transition from Component to Component

Assuming I.C.E. to be a system, students will flow from component to component. Transition must be facilitated by making the student aware of how the information derived in one component has use in the next; helping the student optimize that use.

For example: how does information derived from C.I.S.I. activities become useful in experiences with Project Discovery packages?

6. Values Clarification

Includes processing that created student awareness of his/her own values and priorities as well as those values which are socially supported; must include the role of values in vocational and career selection and planning.

7. Work Values and Employer Expectations

Includes awareness and clarification of values especially relevant to the world of work.

Persons from outside the school can be used for this component. Often they can speak best to this subject and provide believability for students.

8. Vocational and Career Planning

Includes instruction in planning strategies as well as implementation of one of those strategies for vocational and career planning.

Such planning must be consistent with the student's level of developmental maturity.

Teacher, counselors, and parents should be involved in this component.

9. Academic Planning

Includes processing of vocational/career plans (however tentative) and curriculum information to establish direction in high school.

(There is no reason for academic planning to exceed the detail and firmness of the student's vocational and career planning.)

10. Paper-Pencil Testing

Includes surveys, inventories, and other measurements which can be used for the purposes of information processing.

It is possible to work through such an activity as the Project Discovery "Plumbing" without asking a single question of the experience.

One may require and expect nothing more than mechanical functioning, without conclusions, and without integrating the experience with other experience. "Possible, but not probable", you say. The probability is greater than most want to admit. Even where some processing might occur, it is inappropriate to leave it to random outcome.

TO ASSURE THAT YOUR STUDENTS OBTAIN APPROPRIATE EXPLORATORY OUTCOMES FROM EXPLORATORY ACTIVITY, PLAN A COUNSELING SYSTEM.

NOT FOR COUNSELORS ONLY

Counseling (attending, clarifying, listening, etc.) or monitoring skills must always be present during exploration activities executed by the student.

This counseling (information processing) may be done through two structures: centralized and decentralized counseling.

We define centralized counseling as group counseling performed by the counselor.

We define decentralized counseling as one-to-one counseling performed by the teachers and others who administer exploratory experiences.

When we look over the list of 10 counseling components in the preceding section, we can see that some of those components favor centralized counseling and others favor decentralized counseling.

For example, pre and post activity processing favor decentralized counseling. Those persons who supervise exploration activity are familiar with the activity, have the opportunity to observe the student interaction with the activity, and are likely to be best prepared to counsel. This person is not necessarily a "counselor", in the strickest sense of the word. Teachers counsel at the time they are conducing the activity, so they can give the help that is needed at the time.

Parents also must be a part of the counseling process. They will be directly involved in the student's decision-making. It is up to you to provide parents with the information generated by the student's activities and experiences.

The best structure for any local program is a function of local strengths and conditions. Examine the pros and cons of each potential counseling situation and component. Plan a counseling structure that will fit your program. It will most certainly contain a combination of centralized and decentralized counseling.

(6)

- ADDITIONAL RESOURCES

ADDITIONAL RESOURCES: JUNIOR HIGH/MIDDLE SCHOOL

ART

"Careers in Cartooning and Animation" (Sound Filmstrip: 2fs, 2 cassettes). Educational Dimensions Group, 1975. Price $49.00. An introduction to cartooning careers. Appealing material that will interest students. Could be used as an introduction to art programs in senior high schools.

Fixman, Adeline: Aim for a Job in Cartooning. Richards Rosen Press, 1976. Price $4.80. Covering the various fields open to cartoonists, the author discusses the history and nature of the job, training, educational and other requirements, job opportunities and problems, salaries, and how to find jobs or submit work. Included are lists of art training books and accredited arts schools. For middle schools and senior high.

Heyne, Carl J.: Art for Young Americans. Revised by Paul Van Winkle. 7th ed. Chas. A. Bennett & Co., 1970. A textbook which doesn't look like one. Emphasis is placed on experiences fostering art appreciation. Material for study covers a wide range from everyday life of the masters. Appeal geared to the younger teens.

Horton, Louise: Art Careers. Watts, F., 1975. Price $4.33. Helpful as an introduction to a variety of art careers, this slim guide includes data on the architect, city planner, interior designer, the artist, illustrator, graphic designer, and photographer.

COUNSELING

Antholz, Mary B.; Hansen, Lorraine S.; Klaurens, Mary K.; and Tennyson, W. Wesley, The Social Contribution of Work. University of Minnesota. St. Paul: Pupil Personnel Services Section, Minnesota Department of Education, 1972.

Antholz, Mary B.; Hansen, Lorraine S.; Klaurens, Mary K.; and Tennyson, W. Wesley, Significant Others. University of Minnesota. St. Paul: Pupil Personnel Services Section, Minnesota Department of Education, 1972.

Campbell, David: If You Do Not Know Where You're Going, You'll Probably End Up Somewhere Else. Argus, 1974. Price $2.24. This book emphasizes how planning affects outcomes. Color illustrations, large print, direct dialogue is appealing to teenagers.

Carlson, Lois; Hansen, Lorraine S., Klaurens, Mary K; and Tennyson, W. Wesley. Self-Concept Exploration. St. Paul: Pupil Personnel Services Section, Minnesota Department of Education, 1972.

Cashmere, Washington, Career Education Project Modules. Cashmere: Rural Career Education, Teacher Training Cadre, Cashmere School District, 1979.

Harmin, Merrill, "I Learned . . .", Process Posters. Niles, Ill.: Argus Communications, 1974.

Harmin, Merrill; Kirschenbaum, Howard; and Simon, Sidney B., Clarifying Values Through Subject Matter. Minneapolis, Minn. Winston Press, Inc., 1973.

## COUNSELING

"Job Outlook Through the Mid-80's." Senior Scholastic, March, 1975.

Raths, Louis E.; Harmin, Merrill; and Simon, Sidney B., Values and Teaching: Working with Values in the Classroom. Columbus, Ohio: Charles E. Merrill Publishing Co., 1966.

Seed, Suzanne, Saturday's Child: 36 Women Talk About Their Jobs. Chicago: J. Philip O'Hara Inc., 1973.

Simon, Sidney B.; Howe, Leland W.; and Kirschenbaum, Howard, Value Clarification. New York: Hart Publishing Company, 1972.

## ENGLISH

Finn, P. "Career Education: An English/Social Studies Resource." Media and Methods. April, 1975, Vol. 11, pp. 20-23.

Minnesota State Department of Education, Career Development Through English. Minneapolis: Department of Counseling Psychology and Distributive Education, University of Minnesota.

## HOME ECONOMICS

"Babysitting" (26 min. color film) ACI A1188, 1974. This film is good for child care training. For middle school grades.

Brenner, Barbara: Careers and Opportunities in Fashion. E.P. Dutton & Company, N.Y., 1964. Price $3.95. Deals with particular jobs and aspects of the fashion business, including the retail end or merchandising. Tells where and how to go about getting jobs in the field.

Dunn/Peeler: Living, Learning and Caring. Columbus, Ohio, Ginn and Co., 1976. Price $9.20: Teacher's Guide, $1.80. Foods, nutrition, clothing appearance, jobs, relationships with young and old, citizenship at home and in the community, and ecology are presented.

Garrett/Metzen: You Are a Consumer. Columbus, Ohio, Ginn and Co. Paperback. Price $3.95. An introduction to basic economics, money management, and the fundamentals of purchasing.

Junior High Career Education Handbook for Hospitality and Recreation. Des Moines Public Schools, 1975 (bibliography) Divides careers in hospitality and recreation into various categories. Lists objectives, description, and student activities.

Cunningham, M., and Casale, J., "Our Career Awareness Breakfast Program." Teacher, Decmeber, 1974, Vol. 92, pp. 22-23.

McFarland, Marilyn Kay, Instructional Consultant, Exploring Careers in Child Care, Cincinnati Public School. Bloomington, Ill.: McKnight Publishing Company, 1975.

## HOME ECONOMICS

McFarland, Marilyn Kay, and Ramstetter, Vera, Exploring Careers in Hospitality and Food Service. Bloomington, Ill.: McKnight Publishing Company, 1975.

Vanderhoff: Clothes, Clues, and Careers. Columbus, Ohio, Ginn and Co., 1977. Price $9.40; Teacher's Guide $2.05. Ten major topics of study include a history of clothing, how clothes communicate, smart buying, clothing design, the techniques of making your own clothes, mending and altering clothes, and major careers in the clothing industry.

Walker, Greta: Modeling Careers. Watts, F., 1976. Price $4.33. This short but excellent guide to modeling careers discusses the opportunities available in fashion, television and other areas.

## INDUSTRIAL ARTS

Beeler, Samuel: Understanding Your Car, 2nd ed.. McKnight Publishing Co., 1967. Price $7.98. This book contains simple maintenance information for keeping a car running smoothly. There is also general information on taxes, insurance, and how to evaluate a used car.

Betts, Roger M.: Exploring the Construction Industry. McKnight, 1976. Price $10.47. Teacher's ed., student text and activity manual, $24.45. Designed to introduce skills, knowledge, environment and workers of the construction industry. Gives valuable experience in helping identify goals, interests, and abilities and will help choose future courses in school and possibly even a future career.

"Drama of Metal Forming" 30 minute color film. Shell Film Library, Modern Talking Picture Service, Inc. Excellent film covering many steel forming processes, also concerns general metals, forging and non-ferrous metals.

Harrison, C. William: Here is Your Career: Auto Mechanics. Putnam, 1977. Price $5.89. Discusses training and employment opportunities in the field of automobile maintenance and repair.

Liebers, Arthur: You Can Be A Carpenter. Lothrop, Lee & Shepard, N.Y., 1973. Price $5.50. Practical information on courses to take in school and how to become a well-paid journeyman carpenter.

"Faces of a New Foundry", S-81, AEA 5. A very up-to-date film showing the latest advances in foundry production, safety, and ecology.

## MATH

Michalicek, Richard; Paradise, Claude; Pierro, Mike; and Grangaard, Arne, Career Related Math Units. Teacher's Edition. Robbinsdale Area School, Independent School District 281, Minnesota State Department of Education, November, 1971.

Unger, Maurice, and Wolf, Harold A., Personal Finance. Third Edition. Boston: Allyn and Bacon, Inc., 1973.

MUSIC

Bowman, Kathleen: New Women in Art and Dance. Creative Education Society, Inc., 1976. Price $4.95. Brief biographies of a sculptor, weaver, photographer, artist and dancers.

Bowman, Kathleen: New Women in Entertainment. Creative Education Society, Inc., 1976, Price $4.95. Brief biographies of seven women who have been highly successful in various fields of entertainment.

Jacobs, Linda. Men Behind the Bright Lights (Stevie Wonder, John Denver, Elton John, Jim Croce). EMC Corp., St. Paul, Minn., 1975. Price $4.95. A series of four biographies about men in the field of entertainment.

Jacobs, Linda. Women Behind the Bright Lights (Olivia Newton-John, Valerie Harper, Roberta Flack, Cher) EMC Corp., St. Paul, Minn., 1976. Price $4.95. A series of four biographies about women in the field of entertainment.

PHYSICAL EDUCATION

Burchard, S.H.: Sports Star (Chris Evert, Tom Seaver, Bob Griese, Walt Frazier, Brad Park, Pele, Franco Harris, Jim "Catfish" Hunter, "Mean" Joe Greene). Harcourt Brace, 1976. Price $4.95. A series of biographies about sports stars.

Current Health 2, The Continuing Guide to Health Education. Periodical monthly school year. Curriculum Innovations, Inc., Price $7.00/school year; $3.75 each for 15 student rate. Each issue includes "Health Careers Feature".

Geeme, Leila Boyle: King on the Court: Billie Jean King. Raintree Editions, 1976. Price $6.60. A biography of the tennis champion who has done much to assure an equal place for women in professional tennis.

Hollander, Phyllis: 100 Greatest Women in Sports. Grosset and Dunlap, 1976. Price $3.32 net. The stories of more than one hundred women in sports, from early pioneers who broke down barriers of prejudice to great record breakers and innovators of today.

Jacobs, Linda: Women Who Win (Janet Lynn, Olga Korbut, Shane Gold, Chris Evert) EMC Corp., 1974. Price $4.95. A series of four biographies about young women in sports.

McGonagle, Bob: Careers in Sports. Lothrop Lee and Shepart, 1975. Price $5.21 net. Describes career opportunities in the sports world other than that of the professional athlete.

Richmond, Julius B.: You and Your Health. Scott, Foresman & Co., Glenville, Ill., 1977. Discusses dealing with emotions and learning about yourself, drugs, consumer buying, study of the body, exercise and nutrition, safety, disease and public health and the environment.

Sabin, Francene: Women Who Win. Random House, 1975. Price $3.95. Details the careers and achievements of fourteen outstanding women athletes, including tennis pro Billie Jean King, skater Janet Lynn, gymnast Cathy Rigby, track star Cheryl Toussaint, and golfer Kathy Whiteworth.

PHYSICAL EDUCATION

Stambler, Irwin: Women in Sports. Doubleday and Company, 1975. Price $4.95. Contains entertaining and informative stories about the struggles and achievements of twelve great American women athletes.

SCIENCE

Thompson, J.R., "Career Simulation Experiments in Chemistry." Science Teacher, June 1975, Vol. 42, p. 9.

GAMES AND SKITS

Baruth, L.H., and O'Shea, C.K., "Adapting TV Quiz Shows for Use in Career Education." Elementary School Guidance and Counseling, October, 1975, Vol. 10, pp. 50-54.

Boocock, S.S. "The Life Career Games" Personnel and Guidance Journal, (December, 1967), 46, 328-334.

Describes the simulation game in career decision-making. Research suggests the game does (1) effect motivations in career decisions (2) provide practice in decision-making, and (3) communicate factual information.

Goddard, Gloria; and Wood, Clement, Complete Book of Games. Garden City, New York: Halcyon House, 1940.

Perry, Pauline. "Tommy's Career Choice." School Counselor. 1970, Vol. 17, pp. 182-188.

Provides the script for a skit which can be used for an assembly program or parent's night. May be adapted to classroom use.

GENERAL

"AEL Career Decision-Making Filmstrips/Cassettes." McKnight, 1978. Filmstrip/cassette set - price $18.00. Tape cassette - $9.50. These exceptional audio visuals are indispensable for effective presentation of ECDM and CIS and can also be utilized effectively in any career guidance program. They break down occupational stereotyping by showing individuals in nonstereotyped roles. All 18 filmstrips/cassettes and tape cassette are utilized in both ECDM and CIS to introduce key concepts.

Beck, Georgiana, "An Effective Career Education Course." Education, Fall, 1975, pp. 20-23.

Benson, Arland: A Resource Guide for Career Development in the Junior High School. Minnesota Department of Education, Division of Instruction, Pupil Personnel Services Section, 1973. Provides a general framework and suggested techniques and materials for making junior high curriculum providing career development experiences in all school subjects along with co-curricular activities, student grading, student-teacher relationships, library activities, and school-community activities.

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Bjork, Lars E., "An Experiment in Work Satisfaction." Scientific American, March, 1975. Vol. 232.

Boy Scouts of America, Merit Badge Series: New Brunswick, New Jersey: Program Development Division, Boy Scouts of America.

Bristol, Connecticut, Board of Education, Career Education Curriculum Guide, Grades 7 and 8. Bristol, Conn.: Bristol Board of Education.

Career Development. Robbinsdale, Minnesota. Hosterman Junior High School. Shows career exploration through classroom activities. Each subject area is related to the urban community in which the school is located.

Career Education. Minnesota Department of Education and the Red Wing School District. Planned by Leonard Kodet, Career Education Supervisor for Department of Education and Dr. Daniel Mjolsness, Superintendent of the Red Wing School District. Price $1.00. Career Education providing examples of learning activities.

Career Education. Roseville Area Public Schools, Minnesota Department of Education. A series of pamphlets developed by this school for use in career education in most fields from K-12.

Career World (published monthly, school year) Highwood, Ill.: Curriculum Innovations, Inc.

The Careers in Focus Series (paperbacks on exploring occupations) McGraw-Hill, 1976. Price $3.51. Worksheet booklets (pkg. of 10) - $8.70; Teacher's Manual Books available: Exploring Occupations in Engineering and Manufacturing; Exploring Occupations in Agri-business and Natural Resources; Exploring Health Occupations; Exploring Transportation Occupations; Exploring Occupations in Science, Fine Arts; Exploring Business and Office Occupations; Exploring Occupations in Public and Social Services, Hospitality and Recreation; Exploring Occupations in Food Service and Home Economics; Exploring Construction Occupations; Discovering You.

Chamber of Commerce of the United States of America, Career Education What It is and Why We Need It. Washington, D.C.: Chamber of Commerce of the United States of America, 1974.

Church, O. "Career Exploration by Occupational Models." Business Education Forum, January, 1975, pp. 12-13.

Des Moines Public Schools, Junior High Career Education Handbooks. Des Moines, Iowa: Des Moines Public Schools, 1973.

Dryer, Sharon Spredeman: The Bookfinder, a Guide to Children's Literature About the Needs and Problems of Youth Aged 2-15. Circle Pines, Minnesota. American Guidance Services, Inc., 1977. Price $25.00. Split pages, subject, author, and title index. Publishers' directory. Describes and categorizes 1031 current children's books according to 450 psychological, behavioral and developmental topics of concern to children and young adolescents. To help children cope with the challenges of life.

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Doggett, N., "Making School Real." Educational Technology, September, 1974, Vol. 14, pp. 23-25.

Evans, Rupert N.: Career Education in the Middle/Junior High School. Salt Lake City, Utah. Olympus Publishing Co., 1973. Gives a general organization of career education in the junior high school. Discusses what career education is and the need for it, uses in the academic classroom and uses in the arts. There is a unit on work,simulated work, work observation in the junior high school. There is also a unit dealing with organizing career education in the junior high school.

Farias, M., "Planning an Effective Career Week." School and Community, April, 1975, Vol. 61, pp. 32-33.

"Finding Your Job" (sound filmstrip 6 fs/3 cassette tapes) Jamacia, N.Y., Eye Gate, 1972. Six color filmstrips answering the more common questions that students ask about finding jobs: A. Working for someone else. B. What can you do. C. Job shopping. D. The job interview. E. Getting a better job. F. Finding your career. A guide for teachers follows each filmstrip and each audio segment.

Finn, Peter, and Lawson, Jane, Career Education Activities for Subject Area Teachers: Grades 6 - 9. Cambridge, Mass.: Abt Publications, 1975.

Goldhammer, Keith, Extending Career Education Beyond the Schoolhouse Walls. Columbus, Ohio: The Center for Vocational Education, Ohio State University, 1974.

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Healy, Charles C.: Discovering You (careers in focus) McGraw Hill, 1976. Presents guidelines to help students identify their interests, abilities and values, and relate them to the process of career decision making.

John, M.T., "World of Work." Instructor, December, 1974. Vol. 84, pp. 39-40.

Junior High Career Education Handbook for Public Service. Des Moines Public Schools, 1975. Provides instructors with additional insight into the vast wealth of material available in the career cluster of public service.

Kimbrell, Grady: Entering the World of Work. McKnight Publishing Co., 1978. Price $8.97. Designed to help educable mentally retarded, learning disabled, and other handicapped boys and girls in looking for jobs, adapting to the work environment, and succeeding on the job.

Kosier, Mary W., A Guide for Implementing Career Development in the Elementary School. Newton, Kansas: Central Kansas Area Vocational Technical School, 1972.

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Occupational Guidance. Finney Co., Minneapolis, 1975. Price $48.00 per set (five sets of eight spiral-bound paperbacks) Concise summary of 200 major occupations.

Real World: A Look Ahead at Life and Work. Periodical, monthly, school year. King Features. Price $8.50. Each issue covers a number of careers. High interest material in newspaper format.

Saltzman, Glenn A.: Career Education Program. Volume II. Houghton Mifflin Company, 1973. Designed for grades 7-9 to encourage your people to consider important work attitudes, investigate the world of work, learn about important career resources which are available, and actively personalize and retain information considered to be individually significant.

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